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THE STATE *Of* THE PARK

YELLOWSTONE NATIONAL PARK 1999

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Yellowstone Park Foundation

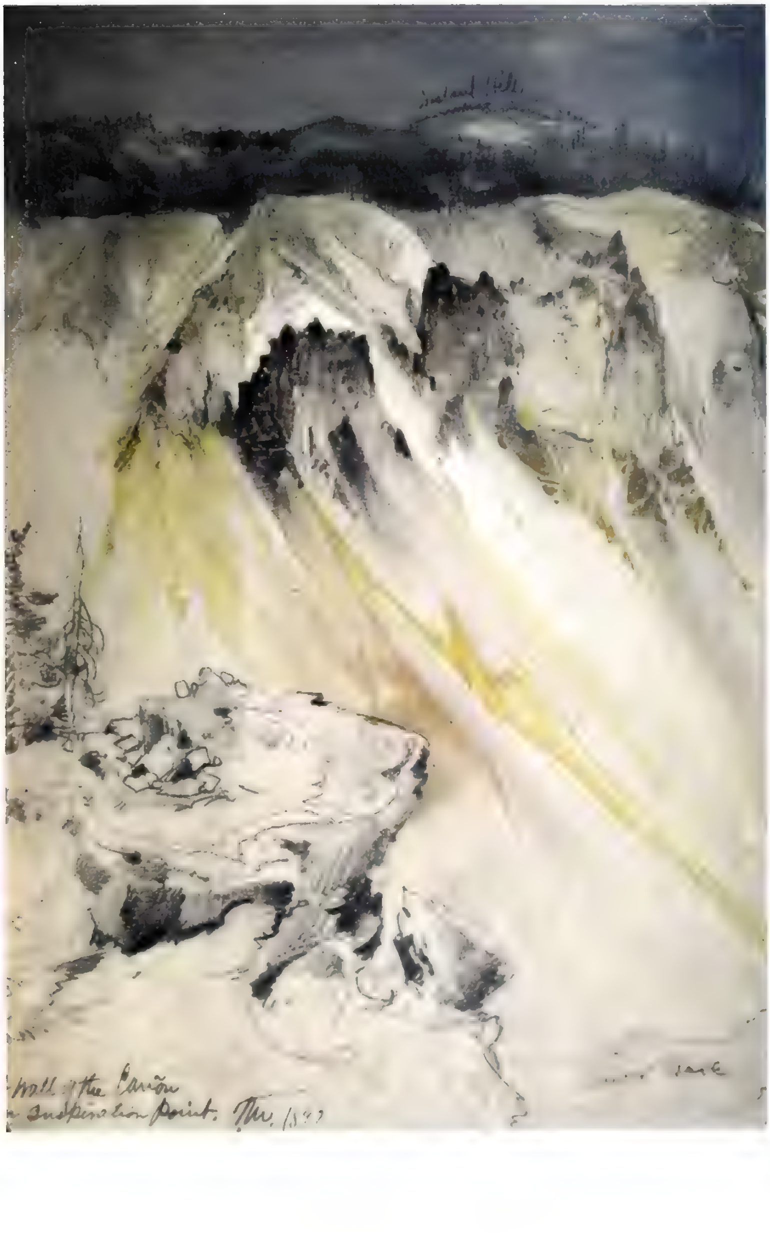
YELLOWSTONE NATIONAL PARK

THE STATE *Of* THE PARK

1999

PART ONE

THE YELLOWSTONE PARK BUSINESS PLAN


Inland Hill
wall of the Cañon
Suspension Point. TM.

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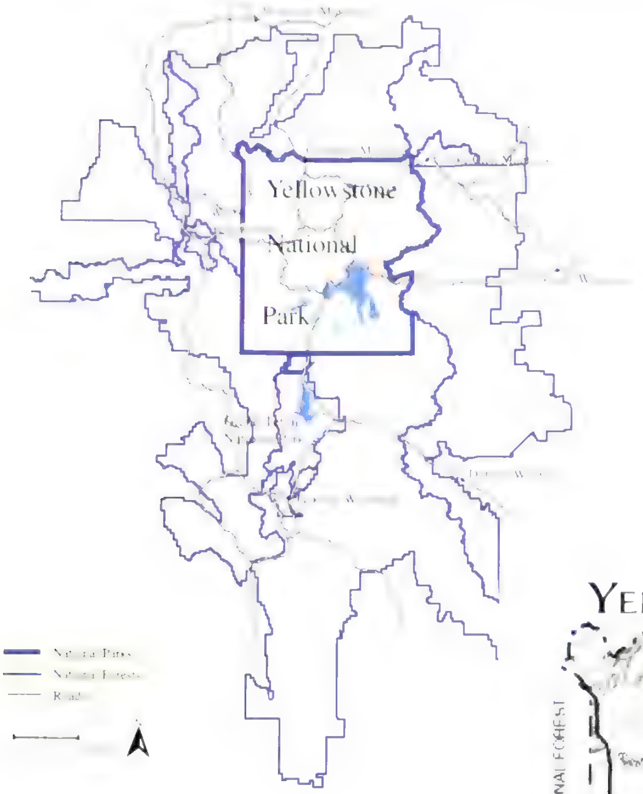
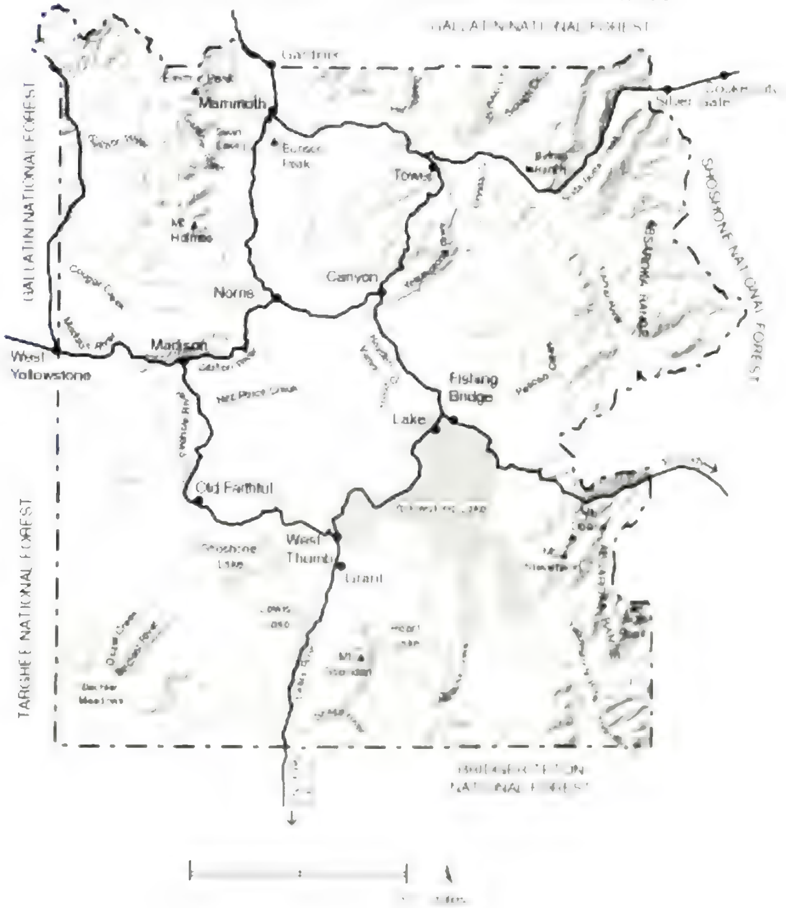
THE GREATER YELLOWSTONE AREA



YELLOWSTONE NATIONAL PARK



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Foreword: An Enviable Privilege

The recent 125th anniversary of Yellowstone National Park provided a time when we not only honored the glorious past of this important American institution, but took a moment for introspection about what Yellowstone means to each of us and to the world.

I am proud to say that my acquaintance with Yellowstone dates back more than 60 years. In 1936 I had the enviable privilege of serving as a seasonal ranger in the park. I have many wonderful memories of that summer. With my fellow rangers, I patrolled the roads, hiked the trails, "rode shotgun" at the bear-feeding grounds near the Grand Canyon of the Yellowstone, and had a thoroughly good time in this great American wilderness.

During my presidential visit to Yellowstone in 1976, I had the good fortune of enjoying a reunion with several of those 1936 rangers. It was clear that whatever we may have done later, our time in Yellowstone was an unforgettable episode in our lives, something we will always look back on with joy and pride.

This report gives all Americans much to be proud of, and much to think about. Yellowstone has served us well for many generations, giving more and more of us the joy of wild beauty and the peace that comes from close association with nature. But as this report explains, Yellowstone gives us much, much more than that, and holds treasures that its founders were unable to imagine.

I am delighted that you are reading this report. The more of us who take part in shaping the future of Yellowstone, the better the park will be, and the more sure we all will be that our descendants, generations from now, will be as proud of Yellowstone as we are today.

Gerald R. Ford

The Honorable Gerald Ford
Former President of the United States

Introduction and [illegible]

The establishment of Yellowstone National Park in 1872 was only the beginning of a great quest to make the most of this extraordinary place. Since then, the prevailing views of how a national park should be managed have undergone many changes, reflecting both the ongoing public debate about the purpose of a national park and scientific advances in our understanding of how natural ecosystems function.

Our recognition that well-intentioned decisions made by past stewards have sometimes been a source of regret prompts some caution as we contemplate our own efforts to manage Yellowstone. We have learned from experience that we cannot improve on what nature provides; the best we can do is strengthen our protection of, and thereby allow, natural processes to ebb and flow largely unimpeded while making the park available for public enjoyment.

Like stewards of all national parks, Yellowstone's managers are struggling to do justice to their responsibility, which becomes more complex and paradoxical with each passing generation. The recognition of Yellowstone National Park as the core of a greater ecosystem is perhaps the most important shift in the public's perception since the first national parks were established for recreation and protection of wildlife and scenery in the late 1800s. The park cannot be insulated from the complicated political and environmental pressures that surround it as the twentieth century comes to a close. Every aspect of the park affects and is affected by what happens on the public and private land around it, in the region that has come to be known as greater Yellowstone. Just as park decisions about visitor access and resource management may influence the economic and physical well-being of the park's neighbors, so do their decisions support or jeopardize the park's future. Finding the right balance is not as simple as use versus preservation; it is a more philosophical question of providing use that is consistent with preserving natural values. One concern is not that the greater Yellowstone ecosystem may be on the verge of collapse, but that the cumulative effect of many affronts to its integrity over an extended period of time may progressively erode its richness until the damage is both irrefutable and irreparable.

We who are privileged to work at Yellowstone have developed this report on *The State of the Park* as a way to share our knowledge about its current status. The report is intended to be our candid appraisal of the state of Yellowstone's natural and cultural resources and the ability of the National Park Service to properly manage and protect them. We report on the park's progress toward the recovery of threatened and endangered species (grizzly bear, gray wolf, bald eagle, and peregrine falcon), and the continuing preservation of many other animals and their habitats. But we also point out some disturbing trends, such as the escalating encroachment of alien plants, animals, and disease organisms, and concern about the future of the park's geothermal systems and bison and pronghorn populations. This report documents the paucity of staff and funding available to manage these complex and often controversial natural resource issues.

We also describe the cultural resources protected within Yellowstone, that range from outstanding archeological sites to nationally significant historic structures and the information, artifacts, and collections preserved in the park's library, museum, and archives. This report demonstrates that while we have made some progress in managing and preserving cultural resources, large elements of the program are still below Congressional and Department of Interior standards for adequate stewardship.

Providing for the enjoyment of the park by the public is one of our primary missions. Some important progress is noted, such as new informational exhibits, enhanced medical training for park personnel, expanded educational programs at the Yellowstone Institute, and major improvements in concession services, including new visitor accommodations at Canyon and Old Faithful. However, we remain concerned about the overall quality of visitors' experiences as reflected in their frustration with crowds, gridlock, and noise.

A review of infrastructure and management effectiveness shows that the needs of the park far outweigh the resources available despite some very important achievements such as reconstructed road segments, enhanced telecommunications, an aggressive program for alternative fuels, and improved employee housing. Millions of dollars are needed for road improvements, and other infrastructure-related deficiencies, in addition to the increased operating funds necessary to provide for the proper protection and management of the park.

Following a description of each of the park's major programs, this report summarizes the state of the program in relation to the park's stewardship goals, with data on each program's budget and staff in fiscal year 1998. Without using expensive research tools or analytical models, we have depicted our assessment of the park's progress toward meeting its many professional and legal obligations (e.g., the trend in the grizzly bear population, the condition of historic structures) using a graphic "barometer." From these individual program assessments, we have compiled an Executive Summary to give readers an overall sense of the state of the park as we enter the new millennium.

It is unfortunate that this report does not reflect better on our government's ability to protect Yellowstone. The problems it describes, many of which are the result of years of chronic underfunding, are not the fault of any one Congress, political party, or administration. We must all accept responsibility for allowing the nation's first national park to deteriorate. Rather than point fingers and determine responsibility, we must commit ourselves to correct the deficiencies and honor our obligation to future generations. A companion document, the park's *Business Plan for Yellowstone's Future*, to be released soon hereafter, will present specific benchmarks or standards for the park's major programs. It will also outline the human resources and financial support needed to achieve those standards for program success and the long-term protection and management of Yellowstone. If you have comments after reading this report, please let us know.

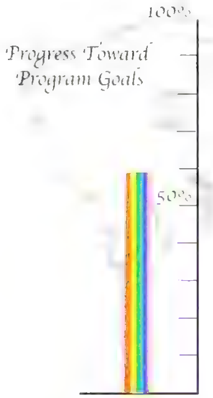
Is Yellowstone at risk? The answer is yes. Will it remain at risk? Only if the American public ceases to care, if budgetary needs are not met, or if the many county, state, and federal jurisdictions whose decisions affect Yellowstone do not recognize and act upon our collective interest in safeguarding essential resources beyond the park's boundary, resources without which the park itself will be tragically diminished.

For whatever debates we may have about how Yellowstone should be managed, few can question the merits of the enormous commitment that the world's first national park represents and the importance of continuing to support that investment. The gift this country gave itself and the world when the Yellowstone idea took hold has multiplied in value a hundredfold, and its assets will become more precious in the future, if we let them.

M.V. Finley

Michael V. Finley
Park Superintendent

The Yellowstone Landscape



Yellowstone's waters, soils, and vegetation are interrelated in ways largely beyond our control. The park contains more than two-thirds of the world's geysers and 10,000 hot springs that are vulnerable to careless behavior by visitors as well as human activities that occur within the much larger ecosystem known as greater Yellowstone. Fires, floods, climate, and political and economic trends also ignore the park boundary, and both short-term and long-term changes in its landscape have been the inevitable result. Efforts to maintain Yellowstone in some "ideal" state would be neither realistic nor appropriate. The park's goal is to preserve the ecological processes that shape its plant and animal communities while minimizing the disruptions caused by both visitor and park management activities.

Tourism ranks as the second most important industry in Wyoming and Montana, with Yellowstone serving as a magnet for about 3 million visitors a year. The park's estimated impact on the regional economy is more than $500 million a year. The park has made considerable progress in working with its neighbors to balance sustainable tourism with conservation of the Yellowstone landscape, but more needs to be done to build lines of communication across geographic boundaries.

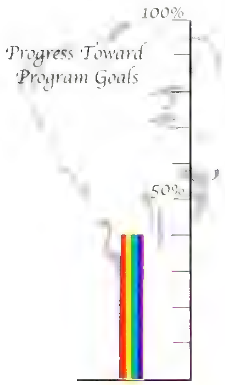
STEWARDSHIP GOALS	CURRENT STATE
AIR, SOILS AND GEOLOGY Air quality is maintained to national standards. The park's geology is completely inventoried, and the geysers, hotsprings, and other geothermal features are monitored to prevent damage to them or injury to park visitors.	The air is relatively clean, although snowmobile and car exhaust is a seasonal problem in some locations. Soils and landforms have been mapped, but less than half of the geothermal areas have been inventoried, monitoring is insufficient, and there is no long-term legislative protection against geothermal development outside the park.
LAKES, STREAMS, AND GROUNDWATER Lakes and streams are free-flowing; the quality of ground and surface water is pristine. Human uses have minimal impact on water quality and quantity.	The park's rivers are undammed and the water resources are generally free from upstream use; but outdated wastewater treatment systems threaten groundwater in some locations. The park staff is insufficient for adequate monitoring.
VEGETATION Native plant communities are inventoried and monitored; rare and sensitive plants are protected. Non-native species and other threats to native plants are addressed.	Maps of park wetlands and other vegetation types have been prepared, but limited research has been done on rare and riparian plants. Exotic species are spreading more quickly than we can limit their impacts on native plant and animal communities.
WILDLAND FIRE Naturally-caused fires play their ecological role in the landscape. When necessary to protect human life and property, fires are suppressed using the most safe, cost-effective and environmentally sensitive techniques.	Since fires swept nearly 36% of the park as part of an inevitable ecological process that was centuries in the making, the park's fire policies have been refined but proven to be fundamentally sound. Additional staff and equipment are needed to ensure adequate monitoring and control of fires.

Wildlife

The park contains more than two million acres of largely undisturbed habitat that supports viable populations of most of the area's native animal species. Due to limited staff and funds, wildlife management programs have tended to focus on species of special concern and the goal of minimizing human impacts on the animals. However, a "hands-off" policy is not suitable in all situations, especially when human health or safety is at risk. Intervention is also considered appropriate in order to control the impact of non-native plants or animals, or to restore native species that have declined or disappeared because of human activities. But relatively little is known about the abundance and distribution of black bears, moose, small mammals, invertebrates, reptiles, and amphibians.

STEWARDSHIP GOALS	CURRENT STATE
BIRDS Yellowstone protects bird populations and their habitat, and works with other agencies as needed on behalf of endangered and migratory species.	Once-endangered falcons and bald eagles are recovering, but whooping cranes and trumpeter swans have declined in greater Yellowstone and migratory birds face many threats enroute to imperiled tropical winter habitat.
BISON The size and distribution of the bison population are determined by ecological processes insofar as possible. Cooperative arrangements with surrounding states manage the risk of disease transmission.	A growing herd of more than 2,000 bison, some of which leave the park in winter, conflicts with efforts to eradicate brucellosis from livestock. Park staff monitor bison movements and work with researchers in the search for better methods to control brucellosis.
ELK AND OTHER UNGULATES Yellowstone supports herds of elk and other native ungulates that fluctuate in response to ecological processes with minimal human interference.	One of North America's largest elk herds and other ungulates are enjoyed by visitors, while controversy continues over their impact on the landscape, especially on the northern range. The viability of the pronghorn population is of special concern.
GRIZZLY AND BLACK BEARS Working with neighboring communities and agencies, the park helps maintain viable populations of threatened grizzly bears and black bears while minimizing conflicts with human activities.	Although grizzly bears are increasing across the ecosystem, habitat loss is an ongoing concern outside the park. Less expensive and intrusive monitoring techniques are needed, but the incidence of bear-human conflicts in the park has declined greatly.
WOLVES Park staff work with surrounding state and federal agencies to restore gray wolves to the ecosystem and provide assistance outside the park as needed.	More than 100 wolves live in greater Yellowstone surviving on elk and other native prey; park staff monitor their movements and help with control actions when necessary to address problems of livestock predation or other concerns.
FISH Native fish are preserved and, where necessary, restored; recreational fishing is controlled to prevent negative impacts, and the effects of nonnative species are minimized.	The widespread acceptance of catch-and-release fishing maintains fish populations, but non-native lake trout loom as a threat to the Yellowstone cutthroat trout and the many animal species for which it is an important food source.

Yellowstone's Cultural Resources

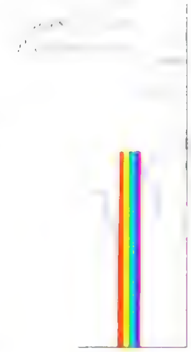


Yellowstone's cultural history extends back at least 11,000 years and continues today, as the world's first national park plays a prominent role in the land conservation movement. The legacy of how American Indians and generations of travelers, areas residents and park managers have used the natural and constructed landscape deserves preservation. The park contains nearly 1,000 historic structures, many of which are still used for visitor lodging, employee housing and work spaces, including five designated National Historic Landmarks. The library and archives preserve a 125-year accumulation of records about park resources and administration. The museum collection includes historic paintings, photographs, hotel furnishings, antique cars and stagecoaches, wildlife and herbarium specimens, fossils, and rocks.

However, because Yellowstone has been valued primarily as a "natural" park for so long, inventory and protection of significant structures, sites, and artifacts have only recently begun to receive needed attention. Damage to these resources, whether located in an inadequately monitored archeological site or crowded into a basement prone to flooding, will continue to occur unless the park's cultural resources program can be expanded.

STEWARDSHIP GOALS	CURRENT STATE
ARCHEOLOGY	
Archeological sites are systematically surveyed, monitored, and protected, including the Obsidian Cliff National Historic Landmark.	About 1,000 American Indian and Euroamerican sites have been documented, but less than 1% of the park has been surveyed. Through natural erosion, land use, and vandalism, sites are being damaged before they can be recorded.
ETHNOGRAPHY	
Ethnographic sites and resources are inventoried and protected. Affiliated American Indian groups are involved in protection and interpretation efforts through both informal and formal consultations.	21 American Indian groups are affiliated with the park and consulted regarding archeological sites of particular interest. However, little is known about Yellowstone's ethnography; a survey is underway to inventory and help develop ways to preserve these resources.
STRUCTURES AND LANDSCAPES	
The most significant historic structures and cultural landscapes are evaluated and preserved according to standards for the National Register of Historic Places.	Lack of funds, harsh winters, and insufficient preventative maintenance have taken their toll on the park's buildings. Concession contracts are now providing significant funding, with major restorations completed at Old Faithful, Lake, and Roosevelt lodges.
LIBRARY, MUSEUM AND ARCHIVES	
The park's storage facilities meet NPS and National Archives standards. Collections receive periodic equipment and technology upgrades and acquisitions of relevant material and are conveniently accessed by researchers.	Cramped facilities fail to meet safety and preservation standards. Little funding is available to add books, specimens and cultural artifacts to collections or adopt computerized technology. The proposed Yellowstone Heritage and Research Center will address this situation if funding can be found.

Science and Technology



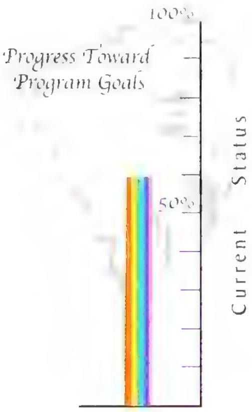
Although scientific advances and technological improvements are essential to fulfilling Yellowstone's resource protection needs and educational mission, the park must depend largely on research done by scientists from other government agencies and academic institutions. Their findings have been essential in addressing problems such as grizzly bear recovery and geothermal protection, but these independent researchers are under no obligation to focus on the issues that are most urgent for park management purposes, including bison brucellosis and the spread of exotic plants.

The commercial successes that have resulted from research on micro-organisms that can survive in the park's hot springs have prompted Yellowstone to pursue the potential of "bioprospecting" agreements, under which companies wishing to conduct permitted specimen sampling would help fund conservation efforts at the park. But aside from the practical applications that can come from either non-profit or for-profit research, Yellowstone is important as a living laboratory in which we can learn how ecological processes have affected a broad landscape over centuries of time with little human interference.

Computer technology, including a geographic information system (GIS), helps support staff and outside researchers in analyzing the enormous quantities of data that have been compiled about the park and its resources, but funding and staff have not kept pace with the demand for high-tech products and services.

STEWARDSHIP GOALS	CURRENT STATE
RESEARCH A broad range of natural and cultural resource topics of concern to park management as well as of general scientific interest are studied by experts in their fields. Adequate logistical support is available for visiting researchers. Findings are communicated to a variety of audiences in and outside the park.	Partnerships with universities and nonprofit foundations have bolstered the potential for cooperative studies, but visiting researchers receive minimal support. Bioprospecting agreements with private companies may provide a source of funding for other research. Results and implications for park management are presented in *Yellowstone Science*, annual reports, and conferences.
TELECOMMUNICATIONS SYSTEMS Reliable, easy-to-use, radio, alarm, and telecommunication systems are maintained and upgraded as necessary to help ensure protection of park resources and the safety of visitors and employees. All park offices have computer access to the network.	Radio systems are being upgraded; cell phones provide access to remote ranger stations; alarm systems protect museums, fee collection stations, and utility systems with special safety requirements. Power poles and lines, communications satellites, and other equipment sometimes pose unsightly intrusions and safety risks.
DATA MANAGEMENT AND COMPUTER SUPPORT Park staff keep Yellowstone up to industry standards in the use of computers and information management systems. Public access to information about Yellowstone is available using the best of current technology.	Despite substantial recent investments, a backlog of equipment and wiring needs has prevented the park from providing adequate information storage and retrieval, database management and Internet access. Public access to park information via computer technology is limited.

Managing Public Use and Services



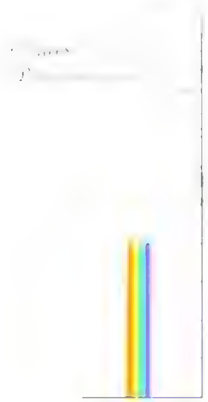
Like many national parks, Yellowstone must often struggle with how to accommodate public use and yet meet its conservation goals. When justified by concern for park resources or human safety, reasonable limits on visitor activities bring few serious objections from the public. However, the facilities and services available at the park have failed to keep up with increased visitor numbers and expectations. Interpretive facilities and programs need updating, and rangers are spread thinly across a vast landscape full of visitors and resources that need protection. Use continues to grow, especially in winter, creating new strains on staff and services—and possibly on the quality of each visitor's experience.

Stewardship Goals	Current State
Interpretation A broad range of high quality interpretive and educational programs are offered to enhance visitor experiences while addressing the park's mission of resource conservation.	Many facilities are inadequately staffed and equipped to provide the range of year-round programs needed for the public to more fully understand and enjoy Yellowstone. A multi-million dollar fund-raising campaign to construct a new visitor center at Old Faithful has begun.
Visitor and Resource Protection Trained staff can address resource threats ranging from fire in a historic structure to poaching of wildlife, and assure rapid response to visitor needs.	Priority is given to responding to reports of missing or injured persons, crimes, and other emergencies, resulting in few serious incidents for visitors, but staffing limitations mean inadequate protection of public safety and park resources.
Park Concessioners Commercial operations in the park are managed to benefit both the visiting public and the taxpayer; the activities offered and the use of park facilities are compatible with Yellowstone's mission.	The park's concessioners have made substantial improvements in facilities and equipment in recent years, and close monitoring ensures protection of park resources. But much remains to be done; renovations to campgrounds are needed along with more food service and budget lodgings.
Backcountry Management Regular backcountry patrols make visitor contacts, maintain trails, monitor resource impacts, and take corrective measures when necessary.	Abundant backcountry experiences are available, but staff are spread thinly across vast acreages, working to protect resources, keep trails clear, and provide information and assistance to visitors.
Winter Use Appropriate levels and types of activity can be enjoyed by a variety of winter users in an adequately staffed and equipped park without negative consequences for wildlife, quiet landscapes, or other park resources.	Winter use has grown more quickly than the capacity of park staff and facilities to accommodate it while protecting park resources. A new winter lodge has opened at Old Faithful, but warming huts, food services, and medical facilities remain inadequate.

Park Infrastructure

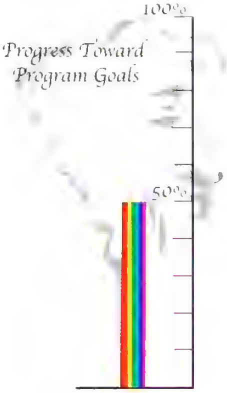
The park functions like a county, bearing the responsibility for infra structure and services that are provided in most areas through local taxes or private contractors. But its long history has left Yellowstone with an assortment of buildings, utility systems, trails, and roads that is in many ways ill-suited to meet current needs and standards for public health and resource protection. Growing visitor numbers and more stringent regulations for safety and accessibility have helped create a large backlog of unfunded obligations. More than half of the park's 773 vehicles are more than 10 years old, and many employees must live and/or work in quarters that are cramped or not designed for year-round use.

Initiatives have been undertaken to reduce energy consumption and increase recycling and the use of "green" technologies, but Yellowstone has a long way to go to ensure the sustainable use and long-term preservation of its facilities.



STEWARDSHIP GOALS	CURRENT STATE
ROADS Visitors enjoy travel on well-constructed and maintained roads that provide scenic vistas and are in keeping with preservation of the park's natural and cultural resources.	Despite major efforts since 1986 using funds from federal gas taxes, only a quarter of the park's roads have been rebuilt, and construction-caused delays frustrate visitors. New construction funds have been promised to address this problem.
TRAILS AND BOARDWALKS All trails are constructed and maintained to the highest standard appropriate to the setting, encouraging universal access where feasible while minimizing adverse impact to resources.	Trails are cleared and maintained as staff time allows, with priority given to the most heavy used trails; neglect results in safety hazards, damage from erosion, and the creation of alternate routes. The park lacks a systematic program for cyclic maintenance or improving accessibility.
BUILDINGS AND GROUNDS Park buildings and grounds are maintained in good condition, serving a wide variety of visitor and employee needs.	Many buildings have inadequate insulation, wiring, plumbing, or other safety hazards that are addressed only when a crisis occurs. Limited housing options make it difficult to attract qualified employees.
UTILITY SYSTEMS The safest and most cost-effective and environmentally appropriate technology is used in the design, construction, maintenance, and operation of park buildings and utility systems.	Aging utility systems are generally failing to keep up with capacity requirements and environmental regulations. Some buildings have been retrofitted for energy efficiency, but hundreds more need similar work. Four sewage treatment plants at heavily used areas must be replaced.
TRANSIT SYSTEMS Safe, convenient, and environmentally sensitive transit systems provide visitors and staff with alternatives to private vehicles in the park.	Feasibility studies for alternative means of transportation have not yet resulted in practical solutions for reducing congestion in popular areas.

Park Staff and Funding



PARK SERVICE EMPLOYEES

Visitors generally regard all employees in the gray and green uniforms as "park rangers" and assume they will be a friendly source of information, and help with everything from minor car trouble to major accidents and lost children. But NPS employees are not immune to stress stemming from concerns about the park's financial situation or their own salaries, benefits, and living and working conditions. For the park, the challenge is to attract and keep those employees who are best qualified and prepared to carry on the tradition of service that the public has come to associate with the NPS while improving employee safety and making the workforce more representative of the broad spectrum of racial and cultural origins of the public they serve.

HELPING HANDS

The business of taking care of park resources and visitors is shared with concession companies, volunteer and service organizations, and long-established cooperators who provide funds, workers, and equipment for park programs. The Yellowstone Association has contributed more than $6 million since 1933, through project funding and staff who help operate visitor centers. Individual and corporate donors have provided money, technical expertise, supplies, and products from software to films. The Yellowstone Park Foundation, created in 1996, is also helping generate private support for historical and cultural interpretation, wildlife management, habitat restoration, and research. Mutual aid agreements with local communities facilitate response to fires, law enforcement situations, and medical emergencies in and outside the park.

BUDGET CONSTRAINTS

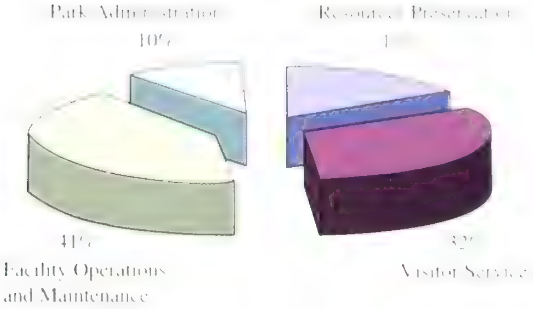
Most of Yellowstone's funding comes from the annual appropriation of tax dollars that the U.S. Congress allocates to the National Park Service: $23 million for 1998. Other sources—such as the portion of entrance fees that the park is permitted to keep—are also important, but they are generally earmarked for specific projects and cannot be used for recurring expenses such as salaries and utility bills. Even with recent funding improvements for the National Park Service and reconstruction of the park's old roads, and substantial donations to address problems like the threat of non-native lake trout in Yellowstone Lake, the park's expenses have been rising more quickly than its financial resources.

During the last two decades in particular, Yellowstone has had to meet the demands of increased visitation and longer visitor seasons. At the end of 1998, 15 percent of the park's permanent positions were vacant because of funding limitations. Legal and regulatory changes have resulted in higher personnel costs, as well as increased requirements for training and equipment to meet national safety or certification standards. NPS grants, user

1998 FUNDING SOURCES*

RECURRING	
Yellowstone Base Budget	$23,041,000
Cost Recovery Special Use Fees	3,561,300
NON-RECURRING	
One-Time ONPS Projects	3,278,400
Private Donations	330,000
Fee Demonstration Program	2,660,000
NPS Construction Projects	3,027,000
Federal Highways Program	9,000,000
TOTAL	$44,897,700

1998 ALLOCATION OF FUNDS



fees, and donations have helped, but with almost 90% of the budget consumed by "fixed" costs such as the salaries of permanent employees and the electric bills for permanent facilities, there is little room to maneuver when unexpected contingencies arise.

FUNDING AND STAFF IN 1998

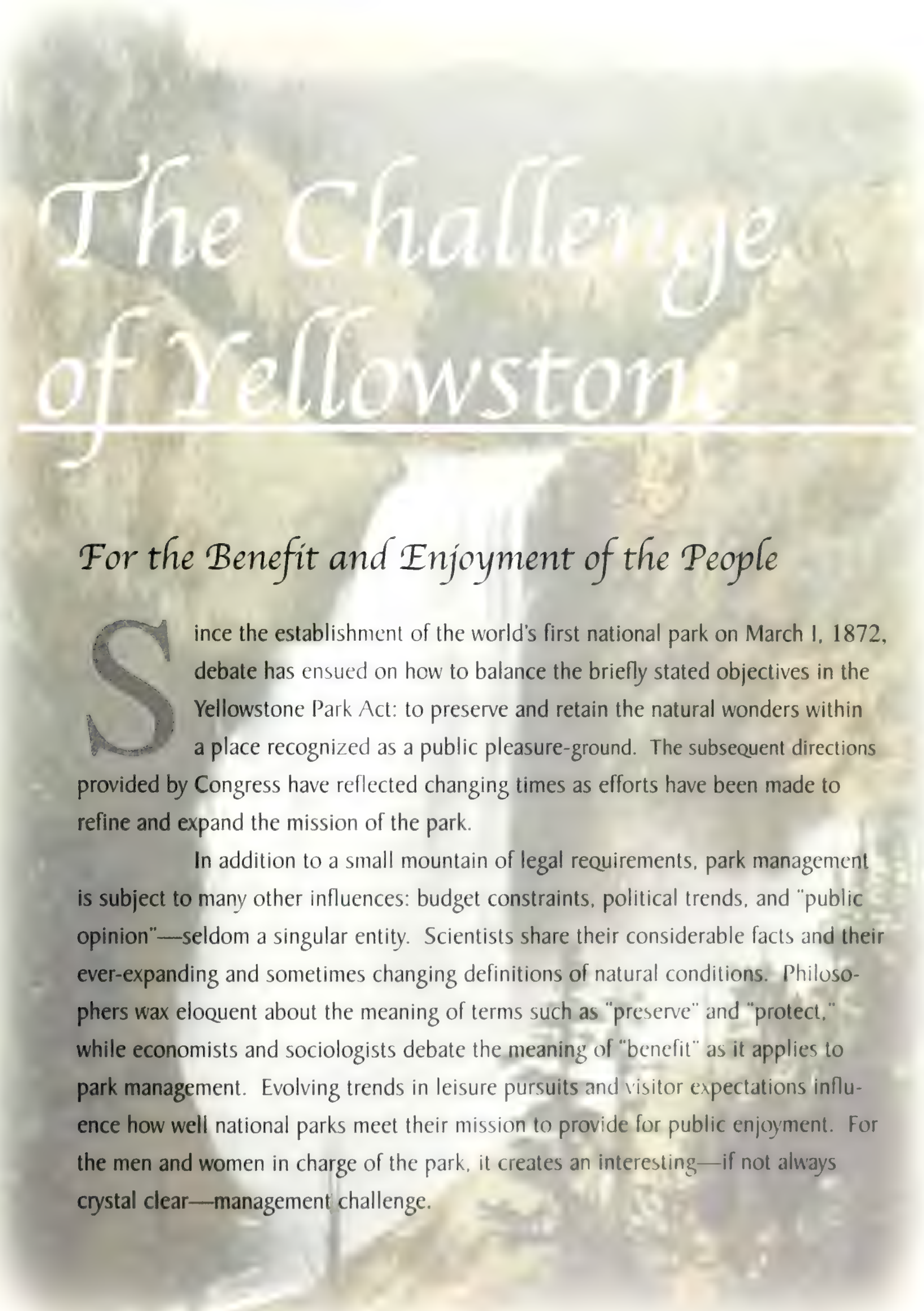
The table on page xx lists the major program areas and the staff and funding allocated to each in 1998.

- **Staff.** The Park Service staff is counted as "full-time equivalents" (FTEs), adding in seasonal and part-time employees based on the fractional portion of the year worked.
- **Recurring Funds.** As shown in the "1998 Funding Sources" table above, recurring sources are the park's annual Congressional appropriation and payments the park receives from cost recovery/special use fees, which include reimbursement for utility expenses incurred by concessioners and others using park facilities, and visitor activities fees such as fishing and boating permits.
- **Non-Recurring Funds.** Included as non-recurring: funding provided by the Congress for the Fee Demonstration Program for construction and other one-time projects; Federal Highways Program funds which are being used to reconstruct park roads and pay related costs such as monitoring of construction impacts on natural and cultural resources; and private donations made directly to the park. Non-recurring sources as shown in this table and in the "1998 Funding Sources" table do not include most of the donations made to the Yellowstone Association or the Yellowstone Foundation which are spent on the park's behalf, nor more than $9 million in funds that are generated by concessioner fees and allocated for the operation, maintenance, and capital improvements related to the park facilities they use.

*Note that this document describes only the major Yellowstone programs and thus does not completely account for the total funds shown in the "1998 Funding Sources" table above. Funds spent on programs not specifically identified in later sections are grouped in the last line on page xx, "Other Programs, Management and Administration." Examples of expenditures included in this line include $145,000 the park spent on entrance station staff and other costs for the fee collection operation, and about $3.9 million spent on the management and administration of the park.

1998 YELLOWSTONE STAFF AND FUNDING

PROGRAM	STAFF	RECURRING FUNDS $	NON-RECURRING FUNDS $
Landscape			
Air, Soils, & Geology	0.7	200,165	36,500
Lake, Streams, & Groundwater	0.4	14,500	7,600
Vegetation	3.4	76,500	76,550
Wildland Fire	15.5	620,000	—
Wildlife			
Bear Management	2.5	115,300	25,300
Birds	0.8	57,500	13,800
Bison	3.3	130,000	206,700
Elk /Ungulates	0.5	38,000	—
Aquatic Resources/Fisheries	5.7	460,800	20,500
Wolf Restoration	2.4	221,000	37,700
Other Wildlife Programs	0.8	43,000	11,200
Cultural Resources			
Archeology	0.6	7,300	252,600
Cultural Landscapes	1.1	52,400	—
Ethnographic Resources	0.5	25,200	—
Historic Structures	0.8	38,800	22,900
Library, Museum, & Archives	6.0	94,500	173,600
Science and Technology			
Research Support	4.5	242,200	—
Geographic Information Systems	2.9	121,000	33,200
Telecommunication Systems	9.0	812,100	96,500
Information Management/Computers	5.0	283,400	54,600
Sustainable Use Initiatives	0.5	3,200	30,000
Public Use and Services			
Interpretive Program	37.4	1,431,700	134,600
Public Affairs Office	4.0	248,600	—
Concessions Management	9.0	461,190	27,500
Backcountry Management	16.2	1,026,450	—
Winter Use	—	60,000	143,999
Visitor Protection	72.0	3,753,799	17,000
Structural Fire	2.0	226,000	—
Resource Protection Operations	15.6	530,536	107,300
Infrastructure			
Park Planning	5.0	213,000	65,000
Trails & Boardwalks	13.2	221,500	431,000
Roads	52.6	2,298,000	10,326,200
Transportation Systems	17.2	1,944,900	489,000
Buildings & Grounds	70.5	4,436,475	3,685,700
Utility Systems	38.3	1,883,100	232,000
Administration			
Staff Development	1.5	10,000	11,000
Safety Program	2.0	311,400	—
Mgmt. & Admin., Other Programs	86.6	3,888,785	1,525,851
TOTALS	510.0	26,602,300	18,295,400



The Challenge of Yellowstone

For the Benefit and Enjoyment of the People

Since the establishment of the world's first national park on March 1, 1872, debate has ensued on how to balance the briefly stated objectives in the Yellowstone Park Act: to preserve and retain the natural wonders within a place recognized as a public pleasure-ground. The subsequent directions provided by Congress have reflected changing times as efforts have been made to refine and expand the mission of the park.

In addition to a small mountain of legal requirements, park management is subject to many other influences: budget constraints, political trends, and "public opinion"—seldom a singular entity. Scientists share their considerable facts and their ever-expanding and sometimes changing definitions of natural conditions. Philosophers wax eloquent about the meaning of terms such as "preserve" and "protect," while economists and sociologists debate the meaning of "benefit" as it applies to park management. Evolving trends in leisure pursuits and visitor expectations influence how well national parks meet their mission to provide for public enjoyment. For the men and women in charge of the park, it creates an interesting—if not always crystal clear—management challenge.

AN ACT TO SET APART A CERTAIN TRACT OF LAND

"Be it enacted by the Senate and the House of Representatives of the United States of America…that the tract of land in the Territories of Montana and Wyoming, lying near the headwaters of the Yellowstone River... is hereby reserved and withdrawn from settlement, occupancy, or sale...and dedicated and set apart as a public park or pleasuring-ground for the benefit and enjoyment of the people….

That said public park shall be under the exclusive control of the Secretary of the Interior, whose duty it shall be to...provide for the preservation, from injury or spoliation, of all timber, mineral deposits, natural curiosities, or wonders within said park, and their retention in their natural condition. The Secretary may in his discretion, grant leases…of small parcels of ground, at such places…as shall require the erection of buildings for the accommodation of visitors; all of the proceeds of such leases, and all other revenues that may be gained…to be distributed under his direction in the management of the same…. He shall provide against the wanton destruction of the fish and game found within said park, and against their capture or destruction for the purposes of merchandise or profit."

—U.S.C., title 16, sec. 22 (17 Stat.32)

A Sampling of Laws

A long list of legislation provides park managers with direction that is further defined in policies, regulations, and mission statements. Those most often cited laws that directly relate to the park's mission of today include:

- The National Park Service Act of 1916 established the NPS to manage parks to "conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

- The Act of April 9, 1924, authorized the Secretary of the Interior to construct, reconstruct, and improve roads, trails, and bridges in national parks and monuments.

- The Concessions Policy Act of 1965 provided for the use of concessioners to offer needed visitor services in national parks, and directed management of concessioner operations.

- The National Environmental Policy Act of 1969 established a national policy "to promote efforts which will prevent or eliminate damage to the environment...stimulate the health and welfare of man…and enrich the understanding of ecological systems…" It required that major federal actions significantly affecting the quality of the human environment be subject to detailed analysis of the environmental impacts.

- The National Park Service Authorities Act authorized the Secretary to designate certain officers or employees to maintain law and order, and protect persons and property within national park units by carrying firearms, conducting investigations, executing warrants, and making arrests.

The United States Congress continues to clarify the NPS mission to improve the agency's management and accountability:

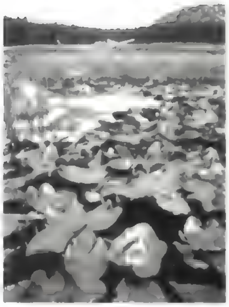
- "Congress declares that the national park system, which began with establishment of Yellowstone National Park in 1872, has since grown to include superlative natural, historic, and recreation areas in every major region of the United States, its territories and island possessions;...these areas, though distinct in character, are united through their inter-related purposes and resources into one national park system as cumulative expressions of a single national heritage...preserved and managed for the benefit and inspiration of all the people of the United States....The protection, management, and administration of these areas shall be conducted in light of the high public value and derogation of the values and purposes for which these various areas have been established...."
  —The 1978 "Redwood Amendment" to the NPS Organic Act

- The National Parks Omnibus Management Act of 1998 provided a clear mandate for parks to use the highest quality science from inventory, monitoring and research to understand trends in the condition of park resources and to aid managers in making decisions.

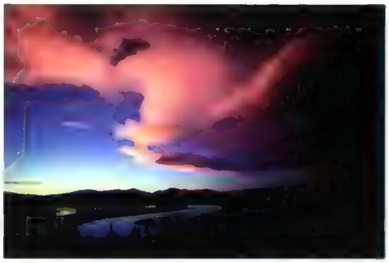
- The National Park Service Concessions Improvement Act of 1998 established a policy that public accommodations, facilities, and services in parks be limited to those that are necessary, appropriate, and consistent to the highest practicable degree with preservation and conservation of the park's resources and values.

Other legislative initiatives have given the National Park Service additional mandates—though not funding—for preserving natural and cultural resources in the parks, and for park administration. Some examples:

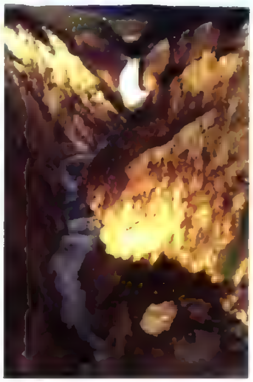
Our Legal Responsibilities for Natural Resources



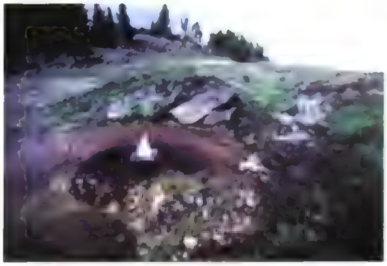
- The Act of May 7, 1894, provided for the protection of birds and mammals within Yellowstone, prohibited hunting, and regulated fishing.
- The Wilderness Act of 1964 required that undeveloped federal lands of substantial acreage be evaluated for suitability as wilderness and that designated areas be administered to leave them unimpaired for future use as wilderness. NPS policy dictates that proposed wilderness (most of Yellowstone) be managed so as not to preclude eventual designation.



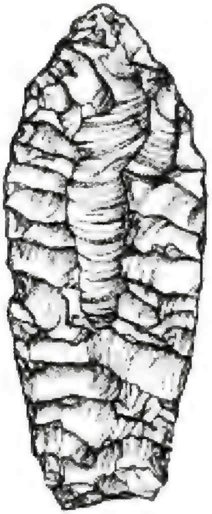
- The Endangered Species Act of 1973 required federal agencies to protect species that are (or are likely to become) at risk of extinction throughout all or a significant part of their range. It prohibited taking any action that would jeopardize their continued existence or result in the destruction or modification of their habitat. Five listed species live in Yellowstone as of 1999: grizzly bear, gray wolf, bald eagle, peregrine falcon, and whooping crane.



- The Comprehensive Response Compensation and Liability Act of 1980 provided direction for the cleanup and management of environmental contaminants, accidental spills, and hazardous wastes.
- The Clean Air Act Amendments of 1991 required air quality monitoring at specified sites including Yellowstone, a Class I airshed—one of the purest in the nation.



- The Clean Water Act was enacted to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" by prohibiting the discharge of pollutants.
- Public Law 100-443 of 1988 required the Secretary of Interior to protect geothermal features in national parks from the effect of geothermal development on adjacent federal lands. It directed the Secretary to establish a research program, carried out by the U.S. Geological Survey in consultation with the NPS, to study the impacts from present and potential geothermal developments.



Our Legal Responsibilities for Cultural Resources

- The Antiquities Act of 1906 provided for the protection of historic, prehistoric, and scientific features on and artifacts from federal lands.
- The Historic Sites Act of 1935 set a national policy to "preserve for future public use historic sites, buildings, and objects."
- The National Historic Preservation Act of 1966 declared a national policy of historic preservation. It authorized the creation of the National Register of Historic Places and gave extra protection to national historic landmarks and properties on the national register.
- The Archeological and Historic Preservation Act of 1974 provided for the preservation of significant scientific, historic, and archeological material and data that might be lost or destroyed by federally sponsored projects.
- The Archeological Resources Protection Act of 1979 provided for the preservation and custody of excavated materials, records, and data.
- The Native American Graves Protection and Repatriation Act of 1990 assigned ownership or control of Native American human remains, funerary objects, and sacred objects of cultural patrimony to culturally affiliated Native American groups.

OUR LEGAL RESPONSIBILITIES FOR PARK ADMINISTRATION

- The Civil Service Reform Act of 1883 marked the beginning of the end of the spoils system, where government jobs were given out as political pay-offs, and provided the foundation for a federal workforce composed of employees selected on the basis of their ability to do the job. Later related Acts included the Retirement Act of 1920; the Classification Act of 1923; the Veteran's Preference Act of 1944; the Annual and Sick Leave Act of 1951; the Health Benefits Act of 1959; the Federal Salary Reform Act of 1962; the Civil Service Reform Act of 1978; the Pay Comparability Act of 1970 and 1990; and Public Law 99-335, which established the Federal Employees Retirement System.

- The Civil Rights Act of 1964 (Public Law 88-352) forbade discrimination on grounds of race, color, sex, religion, or national origin. Other related laws include the Age Discrimination in Employment Act of 1968; the Architectural Barriers Act of 1968; the Equal Employment Opportunity Act of 1972; the Age Discrimination Act of 1975; the Rehabilitation Act of 1973; and the Americans with Disabilities Act of 1990.

- The Occupational Safety and Health Act of 1970, 42 U.S.C., defined policies, programs, and standards necessary to carry out effective park programs to ensure public safety and health of workers.

- The Federal Managers' Financial Integrity Act of 1982 and the Chief Financial Officers Act of 1990 directed government agencies to accomplish their objectives efficiently and effectively within the planned time and approved cost limitations.

- The Appropriation Act of 1994 changed the laws that governed the use of monies paid for recreational use of federal lands, so that park entrance fees that used to be deposited in the general treasury could be retained in the parks.

- The Telecommunications Act of 1996 encouraged the rapid deployment of new technologies affecting park telecommunication systems.

A New Mandate for Performance

In 1993, Congress passed the Government Performance and Results Act (GPRA), aimed at making the federal government more accountable for how tax dollars are spent. Similar to the "performance management revolution" embraced by private industry and many state and local governments, the act requires agencies to develop strategic plans and measurable goals, and to report progress on them to Congress in 2000.

As in other walks of life, the gap between what we wish to accomplish—indeed, what we have a mandate to do—and what we can accomplish under current conditions often seems vast. We have big dreams for what we hope to accomplish through improved resource and visitor protection, educational programs, recreational opportunities, visitor access, and accommodations. We also want to ensure a safe and productive work environment, in which a diverse park staff can effectively carry out the park's mission.

Under Yellowstone's Strategic Plan, developed in 1997 to comply with GPRA, the park developed a mission statement and set goals to be achieved by September 30, 2002. These short-term goals, which fall within three broad categories established for the entire National Park Service, assume that budget resources will remain limited, staffing levels will remain nearly the same, and no major new legislation affecting the park will be enacted. In this State of the Park Report, we highlight the park's primary program areas, their current status, and what is needed for us to reach longer-term goals.

MISSION STATEMENT

Preserved within Yellowstone National Park are Old Faithful and the majority of the world's geysers and hot springs. An outstanding mountain wildland with clean water and air, Yellowstone is home of the grizzly bear and wolf and free-ranging herds of bison and elk. Centuries-old sites and historic buidings that reflect the unique heritage of America's first national park are also protected. Yellowstone National Park serves as a model and inspiration for national parks throughout the world. The National Park Service preserves, unimpaired, these and other natural and cultural resources and values for the enjoyment, education, and inspiration of this and future generations.

MISSION GOALS

Preserve Park Resources

➡ Yellowstone's natural and cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.

➡ Yellowstone National Park contributes to knowledge about natural and cultural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.

Provide for the Public Enjoyment and Visitor Experience

➡ Yellowstone visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.

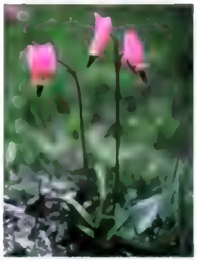
➡ Yellowstone visitors, the American public, and the people of the world understand and appreciate the preservation of Yellowstone National Park resources and associated values for this and future generations.

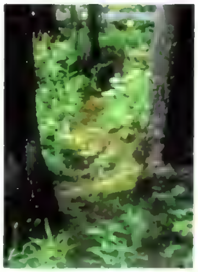
Ensure Organizational Effectiveness

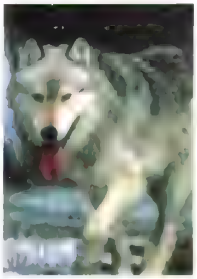
➡ Yellowstone uses appropriate and effective management practices, systems, and technologies to accomplish its mission.

➡ Yellowstone increases its managerial capabilities through partnership initiatives and support from other agencies, organizations, and individuals.

Our dreams and goals outpace our means, as we indicate in this report.
But we will keep reaching for our ideals, assisted by the broad support
of many individuals, politicians, businesses, and organizations,
ever guided by the mandates given to us
by Congress, the executive branch,
and the citizens to whom
Yellowstone belongs.







The Yellowstone Landscape

During its long history, Yellowstone has been through a broad range of management policies. Visitors were once permitted to climb the delicate travertine terraces of Mammoth Hot Springs and place their handkerchiefs at the mercy of Handkerchief Pool, retrieving them as silicified souvenirs after an underground trip. Until the 1960s, preserving the park meant protecting trees from "damage" by fire and insects, and manipulating wildlife populations to favor certain species and maintain certain desired conditions. Some people still believe that such interventions are needed in order to keep the park the way it "should" look and to prevent long-term changes to both public and private land.

Preserving and Restoring the Natural Regime

Experience has shown that visitor activities can forever alter thermal features and other park resources. We have also found that park management activities intended to help the resources have sometimes played havoc with the natural functioning of the system, sometimes doing more harm than good. Changing views about the role of national parks have led to a consensus that profound intrusions by either visitors or park managers are inappropriate.

Yellowstone is now a place where the goal is to subject the landscape and its native plants and animals to minimal manipulation. Changes over time as a result of natural processes are not only inevitable, they are an integral part of the Yellowstone experience, to be discovered by visitors, documented by historians, and studied by scientists. The primary emphasis in natural resource management has shifted from protecting individual species to preserving complete ecological communities. The preponderance of research results during the last 30 years supports the validity of this approach. However, permitting all "natural" processes to occur within the park represents an ideal that cannot be fully attained. A hands-off policy is not suitable in all situations, especially when action is necessary to protect human life or property. National Park Service policy and federal legislation permit or encourage intervention in certain circumstances; for example, to control exotic plants and animals, to fight fire in specific situations, and to restore water quality and native species that have declined in the park because of human activities.

Additionally, it is important to preserve Yellowstone National Park for its cultural values. From the infancy of a preservation idea that took hold and has spread to most nations of the world, to the continuing evolution in conservation policies and trends, the history of the national park movement is represented here. From the prehistoric obsidian quarry to the current administration buildings, the park bears the marks of how different American peoples have used this environment. Researchers and other curious visitors who seek to learn more about past and present cultures and their relationships to greater Yellowstone count on the preservation of valuable remnants of the cultural landscape along with natural features and processes.

Greater Yellowstone

Yellowstone both influences and is influenced by the inhabitants and events of a much broader landscape than that which exists within the park's boundaries. The name "Yellowstone" is recognized worldwide, even if it is often confused with other parks and places. Jackson Hole, the Tetons, and other spectacular landscapes surrounding the park are often thought to be part of Yellowstone, and although they are not part of Yellowstone National Park, they are part of the same ecosystem.

In the last decade, increasing effort has been made to take a more holistic view of this greater Yellowstone. For ecologists, inflexible boundaries have long conflicted with their documentation of animals' herd movements, territory boundaries, and habitat requirements. Hydrologists work along lines of river drainages and topographic barriers, while ethnographers look for patterns among human tribes and cultures. Firefighters, law enforcement officers, and environmental educators are often called upon to cross jurisdictions in order to perform their jobs. And those who make a living in the region often express frustration that the opinions of citizens from around the nation can influence park policy as much as those who are geographically closer to the park.

As Yellowstone's neighbors have become more insistent about having a voice in how the park is managed, park managers and other government agencies have recognized the need to cooperate in the sharing of information, resources, and decision making. In 1986, the National Park Service and the U.S. Forest Service formed the Greater Yellowstone Coordinating Committee to provide a higher level of public service than they could offer separately. Interagency groups bring together park, forest, and state employees to discuss resources of mutual interest, whether trumpeter swans, grizzly bears, or air quality. Government workers join with owners of private lands and businesses to address management challenges such as weeds and garbage. Park representatives participate in tourism conferences and attend chamber of commerce meetings. And when emergencies strike, the park, other governmental neighbors, and local communities have cooperated—to rebuild after fire burned the school in Gardiner, Montana; to help prevent and clean up spring flood damage along the Yellowstone River north of the park; and to search for avalanche and drowning victims and downed planes in the adjacent forests.

Yet despite good deeds done neighbor-to-neighbor, there are plenty of unintended oversights and honest disagreements among those who want a say in how the park is managed. More needs to be done to build lines of communication and understanding across the park boundaries, even if consensus is not always an expected outcome. To maintain a greater Yellowstone for the future, those who care about it must continue to share their knowledge and discuss their views on goals, constraints, and options.

The Socioeconomic Setting

The economic value of Yellowstone was recognized as early as 1870, when Nathaniel Langford of the Northern Pacific Railroad joined General H.D. Washburn on an expedition to explore the little-known region, with the intent of attracting attention and business. While there were some altruistic promoters of a national park, an idea that was being bandied about by philosophers and naturalists of the 19th century, other supporters and legislators who voted in favor of setting aside this vast tract of land first made sure that it was unsuitable for other profitable ventures. Although the Yellowstone Park Act of 1872 was approved by an overwhelming majority of U.S. Congressmen, early critics bemoaned that the "national elephant" was unapproachable and unattractive. These objections spurred Langford, the park's first superintendent, and many of his successors to focus on promoting the value of the new park.

When the National Park Service (NPS) was established to encompass Yellowstone and the other fledgling parks in 1916, its first director, businessman Stephen Mather, embraced the new mode of transportation—the automobile—because it would bring more people to the parks. As the country grew in economic strength after World War II and the Korean conflict, it became easier and more popular for the average American family to plan a trip to Yellowstone. By the 1960s, when campgrounds were full by mid-morning and parking lots were crowded at many scenic landmarks, NPS Director George Hartzog was encouraging growth in another direction. He promoted the idea of national parks in or near the country's urban areas as a way to reach more citizens than could be reasonably accommodated in the great wildland parks of the West. The addition of many national park units in the 1970s addressed the need for recreation sites near major population centers, but did not reduce visitation at the older "crown jewels" of the park system. The popularity of outdoor recreation continues to grow along with its economic value to regions like greater Yellowstone.

Tourism is the second most important industry in Montana and Wyoming (after agriculture and mineral extraction, respectively). Between 1987 and 1992, gross receipts from hotels, motels, private campgrounds, and other lodging providers in Wyoming grew 45 percent, with a similar growth in the tourism payroll. It has been widely recognized that while traditional natural resource extraction industries are still important to communities throughout the West, a healthy and growing economy will also depend on environmental values that attract people and jobs to areas like greater Yellowstone.

MAGNET FOR THE REGION

Though certainly not the only draw, Yellowstone is a prime attraction for visitors coming from well beyond the tri-state region of Wyoming, Montana, and Idaho. It serves as an economic base for the region's tourism industry; if the northern Rockies were compared to the Mall of America, Yellowstone and Glacier would be the big-name anchor stores at either end, drawing customers to rest, eat, and shop in between.

The "value" of Yellowstone. For economists, one way to look at the value of a commodity or activity is to assess how much a buyer is willing to pay for the goods. In a 1995 study of 13 NPS units, researchers estimated that Yellowstone visitors spent on average $158 per day while in the park. A 1997 study estimated that 74 percent of the vehicles entering Yellowstone came from outside the tri-state region, and they spent $1.26 billion in Idaho, Montana, and Wyoming during their travels. The estimated impact from direct and indirect expenditures was $502 million in personal income to the three states, supporting 31,400 full and part-time jobs. While the 108.3-million-acre region's single largest industry is agriculture, the direct personal income generated by visitation to Yellowstone, which

NOT A TRIP AS CHEAP

"...I concede that in the spirit of this age it would be a great deal better to have in the Mammoth Cave a subterranean railroad, use the falls of Niagara for manufacturing purposes, and turn the geyser of Old Faithful...into a Chinese laundry, that there would be some money in it....

The men who go there to a large extent are men of moderate means who cannot afford to go to Europe, but who desire in the rushing roar of active business life a vacation in the summer, and a place where they can rest their tired nerves and their overworked brains. I assert here again, there is not a trip in this country as cheap as to buy a round-trip ticket to the Yellowstone National Park, not one...."

— U.S. Senator George G. Vest of Missouri speaking on behalf of park protection, May 10, 1892 covers less than 2 percent of the region, is estimated to be more than 16 percent of the total direct earnings from the agricultural sector.

Park concessioners collect and return millions of dollars in sales, lodging, and gasoline tax revenues to the state of Wyoming each year. A 1995 study estimated that the state received nearly $14.4 million in sales tax revenues generated by visitors whose primary destination was Yellowstone National Park. The park is a vital economic hub whose effect spirals beyond greater Yellowstone.

TAXING THE TRAVELERS

Legislation and history help determine the role that state and local governments play in national parks. Because Yellowstone was established before Idaho, Montana, and Wyoming became states, it has "exclusive federal jurisdiction" to enforce laws within park boundaries. However, Congress authorized the collection of state and local sales taxes in such areas. Visitors pay a higher tax at stores, hotels, gas stations, and restaurants on the west side of the park, which lies within Teton County, Wyoming, where the sales tax is 4 percent on the dollar. In northern and eastern Yellowstone, which is in Park County, Wyoming, a 3 percent sales tax applies.

CONCESSION	TYPE OF TAX	1998 REVENUES
Amfac	State/County sales	$ 2,960,804
	Lodging	307,260
Hamilton Stores	State/County sales	1,141,581
YPSS Service Stations	Federal/State gasoline	504,345
	Federal/State diesel	380,047
	State/County sales	21,672
Total		$ 5,315,709

States and counties do not provide services within the park typical of those paid for through sales and use taxes elsewhere in their jurisdictions. Garbage collection, road maintenance, police and fire protection are sole responsibilities of Yellowstone National Park.

RESISTING POLARIZATION

The challenge for park managers has increasingly become the need to balance tourism-based growth with other park purposes. More visitor use is not inherently threatening to park resources, nor does it always detract from the quality of visitors' experiences, but at some point the popularity of a place outpaces its capacity to accommodate all those who wish to enjoy it. Concerns about crowding, noise, and air pollution have prompted proposals to limit cars in Grand Canyon, Zion, and Yosemite national parks and to eliminate private vehicles from Yosemite Valley. While Yellowstone has not yet reached this saturation point, the park does experience crowding and congestion at certain locations. Promoters of perpetual tourism growth must recognize the law of diminishing returns, and the truth behind national press reports of Americans "loving their parks to death."

SUSTAINABLE TOURISM

To avoid the conflict between advocates of environmental conservation and promoters of economic growth, many park supporters have adopted the concept of "sustainability" as a viable goal. Sustainable tourism is generally regarded as a means of allowing visitors to enjoy an attraction or region in ways that leave the local culture and environment unimpaired. But tourism and recreational use inevitably cause some impact on the resources, and managers must make value judgments about how much change is acceptable.

To improve our chances of achieving sustainable growth, we need to better understand the social and economic impacts of tourism, and how and why visitors value natural environments. It has been suggested that those interested in promoting tourism could provide communities with the resources needed to enhance their liveability, protect their natural and cultural heritage, and provide economic opportunity for their citizens—laudable goals for a growth industry.

Through a combination of expanded mass transportation, better information systems for travelers, and alternative fuels for vehicles, Yellowstone may be able to accommodate visitors with less impact to park resources. However, use levels are already straining park facilities in some cases. The number of overnight accommodations has been limited in the park for many years, as have some other services and facilities. As visitation increases, this type of limit is likely to become more common. Even so, Yellowstone will continue to be a magnet that attracts visitors to a region in which a grand array of other public and private recreational opportunities can be enjoyed and managed in complementary ways.

Physical Environment

Most of Yellowstone National Park lies within one of the world's largest volcanic calderas, which now encompasses the 14-mile width of Yellowstone Lake and is encircled by the park's major geyser basins. During the volcano's last major eruption, about 600,000 years ago, a deep layer of ash settled as far away as Nebraska. More recently, people wondered what sort of biological communities would arise from the ashes left by the fires of 1988, which swept across more than one-third of Yellowstone. Although our knowledge of how Yellowstone evolved after that stupendous volcanic eruption remains sketchy, we have been able to observe firsthand and document in detail what has transpired in the park since 1988. We have seen trees, shrubs, and grasses emerging from the reservoir of seeds, bulbs, and roots that lay within the nurturing environment of Yellowstone's soil. Although the effects of those fires will be evident, visually and ecologically, for decades to come, the "new" Yellowstone is fundamentally a continuation of the "old" Yellowstone—the ever-changing result of fire, climate, geology, and other natural processes that have been continuing for eons.

The Geology of Yellowstone

The oldest geologic materials in Yellowstone are Precambrian gneiss and schists (2.7 billion years old) that can be found in the Black Canyon of the Yellowstone River. Eocene Absaroka volcanics (40 to 50 million years old) buried the region in deposits of andesite lava, ash, mud, and debris flows that are thousands of feet thick on the east and northwest sides of the park. These mud and debris flows buried forests and formed the petrified or fossil forests that are now popular park attractions. More recently, during the last two million years, cataclysmic eruptions created three calderas, including the enormous Yellowstone caldera in the center of the park we know today, and produced extensive sheets of rhyolitic ash tuff and lava flows, the most common geologic materials in the park. The magma under the surface continues to provide a heat source in parts of the park, creating geysers, hot springs, mudpots, and fumaroles, and contributes to the frequent seismic activity in the area. Hidden beneath the region, Yellowstone's volcano is dormant at best; most geologists predict another cataclysmic eruption "relatively soon"—within the next 10,000 years or so.

The area has undergone at least three extensive glaciations, during which glaciers created the landforms and surficial deposits that now dominate the topography. It was at the end of the last glaciation, fewer than 14,000 years ago, that plants and animals returned to the area and the landscape began to look like the Yellowstone we know today.

The Dimensions of Yellowstone

Yellowstone National Park covers 2,221,766 acres, which is roughly the size of the state of Connecticut. Most of the park is located in the northwestern corner of Wyoming, but a small portion overlaps that state's boundaries with Montana and Idaho. The park is comprised primarily of high, forested, volcanic plateaus that have been eroded over the millennia by glaciation and stream flow and that are flanked on the north, east, and south by mountains. The Continental Divide traverses the park from its southeastern corner to its western boundary. The elevation of the park averages 8,000 feet, ranging from 5,282 feet in the north, where the Gardner River drains from the park, to 11,358 feet in the east, at the summit of Eagle Peak in the Absaroka Range.

Restoration of Mining Sites

The U.S. Congress agreed to the boundaries of Yellowstone National Park in part because the area was thought not to include any significant mineral deposits. However, sand, gravel, and rock were once excavated for road construction in the park, and some coal mining was done during the World Wars. As a result, the park's landscape is marred by excavation pits and mine entrances in certain areas. In the early 1990s, Yellowstone began working with Wyoming and Montana to obtain state mining reclamation funds that were intended to be available for this purpose. A small coal mine on McMinn Bench with an open entrance and unsightly, unvegetated tailings was rehabilitated in 1993. Three gravel pits (Little Thumb Creek, Dry Creek, and Ice Lake pits) were restored in 1997 and, with funding provided by the state of Wyoming, work on other abandoned mine sites is expected in the future.

Soil survey. After eight years of data collection and analysis of samples from more than 1,200 sites, a comprehensive survey of Yellowstone's soils was completed in 1996 in cooperation with the Gallatin National Forest. This information is valuable to the understanding of a wide range of phenomena, including erosion, flooding, and sedimentation processes, and revegetation after fire, grazing, natural perturbations, and human-caused disturbances.

Surficial processes. Despite the soil survey, information about the geologic processes that take place in streams and on the landscape, and how our activities affect them is still inadequate, partly because of the lack of staff specialists. Park managers must routinely make decisions affecting location of roads, rip-rap, and septic systems; stream and lakeshore erosion, fire-related sedimentation, and vegetation-geology-animal relationships, without comprehensive geologic information. Additional scientific knowledge and long-term experience are necessary to improve management decisions in these areas.

Geothermal Features

Within Yellowstone's boundaries can be found more than two-thirds of the world's geysers, along with about 10,000 hot springs, mud pots, and fumaroles. The only other major geyser basins that have not been disrupted by human activity lie on the Kamchatka Peninsula in eastern Russia. The park's steamy geology also supports the world's most visible concentration of heat-loving bacteria, known as thermophiles. Researchers have focussed on these unique life forms because of their ability to survive in very extreme

conditions, and their contribution to major advances in medicine and biotechnology. (See "Bioprospecting," page 5-7.)

Although Yellowstone's geothermal features are the most unique of its natural resources—and among the most vulnerable to human activity—they receive a very small portion of the park's funding for research and monitoring. This is partly because the charismatic wildlife species generally dominate the attention of the public and special interest groups, to whom threats to geothermal resources are often invisible.

An underground internet. Yellowstone's geothermal features are part of a complex hydrothermal system that extends well beyond the park's boundaries, especially to the north and west. Thermal features can be extremely sensitive to natural or human-caused ground disturbances, and alterations to any of the system's components could have far-reaching consequences. Certain types of deep drilling or thermal resource development could introduce new water or flow paths, change the pressure in the system, or remove heat from it. Even relatively small changes in subsurface reservoirs may affect surface features that are miles away. The effects may be seen immediately or many years later, but once a change occurs, restoration of a feature's original function is generally impossible. In Iceland, New Zealand, Chile, Japan, and the United States, geothermal drill holes and wells up to 30 miles away have greatly reduced geyser activity and hot spring discharge.

A major threat to Yellowstone has come from proposals for geothermal lease applications for sites outside the park, some less than two miles from known park thermal areas. Commercial facilities could, for example, use steam trapped underground to drive electrical generators. Although geothermal test drilling outside the park in 1986 prompted a round of studies, funding has never been available for the long term databases needed to accurately assess the geologic hazards and potential effects of external drilling activities on park resources. Scientists caution that external drilling for oil and gas development would be even more of a threat, because the extraction of fluids can cause subsidence and earthquakes, which typically result in changes in geothermal features.

Montana/NPS Reserved Water Rights Compact. After a decade of negotiations, the NPS and the state of Montana signed an agreement in January 1994 to guarantee that Yellowstone's historical water rights will not be violated and that geothermal aquifers with potential connections to Yellowstone's geyser systems will not be compromised. The agreement quantified Yellowstone's water rights (see "Lakes, Streams, and Groundwater," page 2–17) and set up a process to protect these rights from outside development. Under traditional water law, the burden of proof would have been on the NPS to demonstrate that a development would cause impairment. Even if such proof were possible, by the time the impairment to a thermal feature was apparent, it would have been too late to rectify. The compact addressed this issue by requiring the developer to demonstrate that no potential exists for adverse effects to the hydrothermal system and that any scientific doubt concerning the effects will be resolved in favor of hydrothermal protection for the park. A technical oversight committee of scientists with hydrothermal system expertise has been established to review the evidence.

DANGERS AND DISCOVERIES ATOP THE VOLCANO

Yellowstone has one of the largest semi-dormant calderas in the world, measuring 47 miles long and 28 miles wide. The last cataclysmic eruption, which expelled more than 240 cubic miles of lava, rock, and ash, was part of a volcanic period that began about 650,000 years ago. Major hydrothermal explosions were still taking place about 3,500 years ago, which in geologic terms is just yesterday.

The University of Utah operates a network of 22 seismic stations in and around the park to gauge the magnitude of earth tremors. A swarm of more than 100 small earthquakes was reported west of Norris with magnitudes up to 4.3 on the Richter scale during the summer of 1997 and again in September of 1998. Such swarms happen frequently in greater Yellowstone, which was rocked by earthquakes of 7.0 or greater in 1959 and again in 1983.

Yellowstone's many geothermal features are extremely sensitive to seismic processes; small and large tremors often affect the activity of geysers and hot springs, making each visit to the geyser basins as unpredictable as a hike in search of wildlife. The Yellowstone hot spot also presents significant human safety hazards—potential volcanic eruptions, hydrothermal explosions, and earthquakes—and an opportunity to study and possibly predict major geologic activity. We expect that future volcanic unrest will be preceded by far more intense seismic swarms and hydrothermal changes.

Geologists survey volcanic uplift within the Yellowstone caldera on an annual basis. The total uplift from 1923 to 1984 was about one yard; then the caldera subsided about an inch each year until 1996, when it began to move upward again. To detect potentially hazardous changes on a day-to-day basis, a network of six automated gauging stations was installed at Yellowstone Lake in 1983, but they are no longer in operation due to lack of funds.

A BREATH OF FRESH AIR

Under the Clean Air Act, Yellowstone is designated a Class I airshed—intended to have among the cleanest air in the United States. While the park's isolation from urban and industrial areas provides a buffer from major sources of air pollution, research in many ecosystems has shown that airborne pollutants affect air quality and visibility hundreds of miles away.

Baseline air quality sampling in Yellowstone began in 1980 with the installation of equipment to monitor wet deposition (precipitation volume and chemistry) at the Tower Ranger Station as part of a National Atmospheric Deposition Program. Visibility is monitored at an IMPROVE (Interagency Monitoring of Protected Visual Environments) station near Lake Yellowstone. An EPA-coordinated CASTNET (Clear Air Status and Trends Network) station measures atmospheric concentrations of sulfate, nitrate, ammonium, sulfur dioxide, and nitric acid, as well as ozone and meteorological factors such as air temperature, solar radiation, wind speed, and direction. Montana monitors carbon monoxide at the park's West Entrance. The results indicate that the park's air quality and visibility generally remain high, but site-specific problems exist.

In Yellowstone, the most pressing concern is snowmobile exhaust from within the park (see "Winter Use," page 6–38). In the winters of 1993 and 1994, the park began to document the physical symptoms of employees at the West Entrance, where more than 1,200 snowmobiles come through on a peak day. Snowmobiles are powered by two-stroke engines that have high power-to-weight ratios and operate well in sub-zero weather but are inherently polluting; one-quarter to one-third of the oil and gasoline mixed in the combustion process is emitted unburned. Snowmobiles produce significantly more carbon monoxide and particulates than the modern automobile, and their emissions may contain significant quantities of toxic air pollutants.

Recent modifications to the kiosks and park operating procedures appear to have reduced exposure to snowmobile exhaust for employees at the kiosks. Unanswered questions about the effects of snowmobiles and automobile exhaust on visitors, employees, and the ecosystem's natural and cultural resources make monitoring and interpretation of Yellowstone's air quality a continuing necessity.

Program Needs

- Legislative protection. The policy on federal land has been to reject geothermal leasing applications "until adequate safeguards for protection of surface resources may exist as a result of developing technology." But a shift in energy economics could increase interest in opening non-federal lands to drilling activity. Legislation passed by Congress in 1988 requires the Secretary of the Interior to prevent geothermal development on adjacent federal lands that would affect geothermal features in national parks. In 1991 and again in 1993, a bill called the "Old Faithful Protection Act" was passed by the U.S. House of Representatives. The bill would have required developers of any land within 16 miles of the park to prove that geothermal drilling would not harm Yellowstone's hydrothermal system. Despite the support of governors from all three surrounding states, the bill did not pass the Senate in either year, and there are no proposals to reintroduce the legislation.

Although the Montana/NPS Reserved Water Rights Compact addresses important groundwater development issues, it does not cover the direct extraction of heat, steam, and geothermal brine, and it includes only Montana, not Idaho or Wyoming. To ensure the integrity of Yellowstone's geothermal features, the NPS has recommended that Congressional action be taken to control groundwater development adjacent to the park in Wyoming and Idaho. Protection should extend to the cold water influx as well as the hot water outflow. Other activities such as the extraction of heat, steam, and geothermal brine should be controlled in all three states adjacent to the park.

- Inventory. Inventory and monitoring of the park's air quality, geothermal, seismic, and hydrologic resources have been suspended or seriously curtailed during the last decade because of funding constraints. Only 40 percent of Yellowstone's 121 known geothermal areas have been thoroughly mapped and documented through measurements, photographs, and chemical analyses; 30 percent are partially inventoried; and the remaining 30 percent have not been inventoried at all. The locations of previously disturbed sites such as gravel pits, closed landfills, abandoned development sites, and rerouted roads are known but need to be mapped, catalogued, and prioritized for restoration. Funding is needed to complete thorough inventories of geological resources, make such data readily accessible, and to implement a systematic program to rehabilitate disturbed lands.

- Monitoring. More systematic monitoring of thermal resources, especially hot water discharge, is needed in order to recognize and interpret changes in geothermal features as they relate to natural or human-caused events. At present, only Old Faithful is continuously monitored. Professional monitoring is also essential at disturbed sites, particularly those having hazard potential such as landfills and sites near streams, as they are rehabilitated. Monitoring should continue until it can be confirmed that there is no ongoing environmental degradation. A comprehensive winter air quality monitoring program is needed to better identify pollutants in high-use snowmobile areas, measure the exposure of employees and visitors to the emissions, evaluate potential health effects, and measure pollution deposition in the snowpack and runoff.

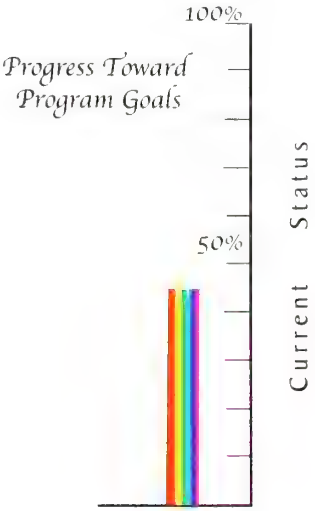
- Staffing. Following the loss of the park's only geologist, who died in 1997, an advisory group of physical scientists recommended that three positions be established for earth scientists to monitor geophysical resources and processes, address threats to water quality, interpret air-land-water relationships, and bolster the park's efforts to interpret its unique geology. But tight budgets prevented any new geologists from being hired until late 1999.

- Research. More research is needed to better understand geothermal systems, identify and plan for potential geothermal and seismic emergencies, and assess the effects of external activities such as oil and gas drilling. Although current funding permits operation of six U.S. Geological Survey gauging stations located on each of the main river systems exiting the park, additional monitoring stations are needed in order to relate changes in water and mineral data to natural or human-caused changes in aquifers that could affect the park's geothermal systems.

- Upgrade equipment. With rapid changes in seismic and geothermal technologies, the park has been unable to maintain up-to-date monitoring equipment. For example, immediate notification of seismic activity is essential for reporting hazards to park managers and state and local emergency planners, yet the park lacks an immediate communications link with the University of Utah's seismic unit. Portable ambient air quality monitoring equipment is needed to supplement the existing regional monitors permanently located at Lake and Tower Junction. In addition, a regional airshed model needs to be developed and maintained.

AIR, SOILS, AND GEOLOGY

STEWARDSHIP GOALS	CURRENT STATE OF RESOURCES/PROGRAM
Geology and geothermal fearures are completely inventoried, monitored and interpreted using up-to-date information, facilities and techniques.	Soils and landforms have been mapped, but less than 30% of geothermal areas have been thoroughly inventoried. Geology interpretation needs updated information, exhibits, and techniques.
Air quality is maintained to natural standards for future generations. Public expectations for cleanliness and quiet are achieved.	Parkwide air resources are fairly pristine. In certain locations, the problem of snowmobile and automobile exhaust needs to be addressed.
Water quality and quantity are monitored and national standards are maintained unimpaired for future generations.	Both thermal and cold waters have some protection, but geothermal development poses a serious risk to park resources.
All previously disturbed lands not used for visitor or park facilities are restored to natural conditions.	Partnerships and special funding have permitted several disturbed sites to be restored, but dozens remain to be done.
Professional staff implement a fully funded program to monitor and interpret physical resources, and to manage hazards.	Monitoring and research are undertaken by generous cooperators, but as of late 1999 the park had no geologic experts on staff to monitor resources or hazards.



1998 FUNDING AND STAFF

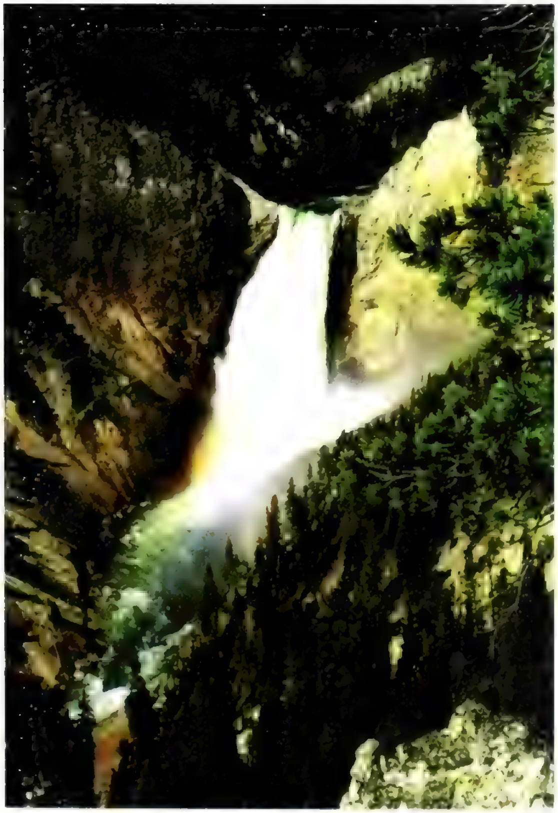
Recurring Funds Yellowstone N.P. Base Budget	$ 200,165
Non-Recurring Funds One-time Projects	$ 36,500
Staff	0.65 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Lakes, Streams, and Groundwater

About five percent of the park is covered by water, including more than 220 lakes and 1,000 streams. Yellowstone Lake, which lies at an altitude of 7,730 feet, covers 136 square miles and is 400 feet deep, is the largest lake at high elevation in North America. Visitors enjoy Yellowstone's waters while sightseeing, fishing, hiking, canoeing, and motor-boating where permitted. (See "Fish and Other Aquatic Resources," page 3–28.) These recreational activities are managed so that they do not interfere with the goal of preserving wildlife in a natural setting for other visitors to enjoy. For example, the use of personal watercraft and river rafting is limited.

Yellowstone has one of the most significant unimpaired aquatic ecosystems in the United States. As a result of both natural topography and early preservation actions, the headwaters of five major river systems (Fall, Gallatin, Madison, Snake, and Yellowstone) are either in or just upstream from the park. Despite efforts earlier this century to harness some of these rivers, the upstream portions remain free of dams and diversions and have had minimal impact from industrial pollution, road construction, mining, agriculture, or deforestation. The 670-mile Yellowstone River, the longest undammed river in the lower 48 states, plunges 308 feet at the Lower Falls in the Grand Canyon of the Yellowstone, almost twice the drop of Niagara Falls.



Below ground are reservoirs of water that feed countless hot and cold springs. This unmapped and largely unknown resource is minimally diverted for water used in the park's housing and visitor areas. Yet even these small wells and water pumping systems may affect the park's natural plumbing, and their use must be monitored. Treated wastewater that is returned into the system must meet or exceed all state and federal water quality standards.

BOATING

Non-motorized boats can be used on many park lakes, but all boating has been prohibited on the park's rivers since 1950, except for the four-mile channel between Lewis and Shoshone lakes. In 1960, the increasing use of powerboats on Yellowstone Lake prompted a proposal to ban them completely in order to protect beaches and bird nesting and to provide a sanctuary for those in search of quiet. Instead, a compromise has permitted powerboat use to continue on Lewis Lake and most of Yellowstone Lake, where many backcountry campsites can be reached only by boat or foot. Visitors can launch their own boats or charter a boat with or without a fishing guide at the Bridge Bay marina. Waterskiing and jet skiing are prohibited, and the cold Yellowstone waters generally deter all but the hardiest swimmers.

The growing popularity of kayaking and river rafting has increased pressure to open park rivers to boating. When the issue was reconsidered in the 1980s, public opinion strongly favored boating restrictions. The park's decision to retain the restrictions was based on the known ecological impacts of boats on nesting waterfowl and other wildlife, archeological and thermal resources, and bank erosion, as well as on the belief that they impair wilderness aesthetic values.

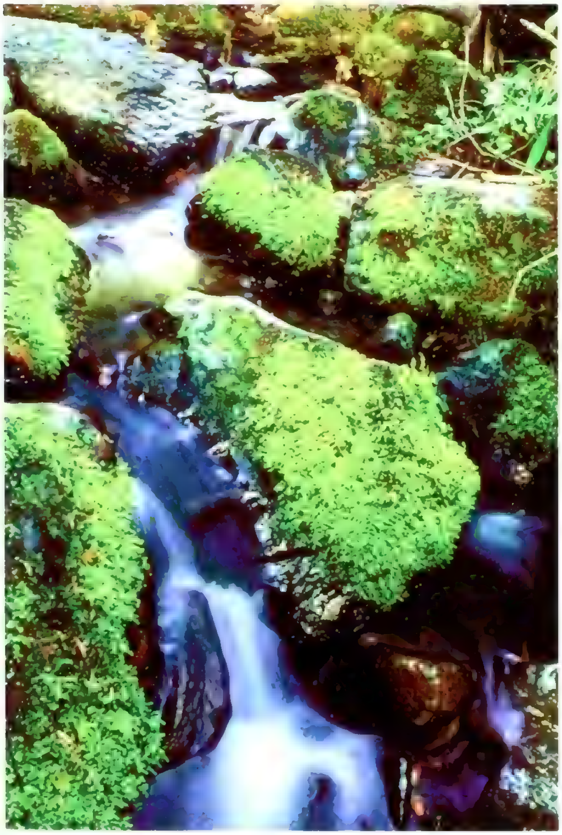
Although this has meant favoring one type of visitor use over another, it reflects the need to prevent park values from being compromised by the cumulative effects of an expanding variety of recreational activities. However, in late 1998 when American Whitewater, a national boating enthusiasts' organization, submitted a proposal to Yellowstone to allow whitewater boating on some park rivers, the park agreed to consider it.

Compared to overall park visitation, boat use has increased slowly. In 1963 the park issued 4,011 boating permits; in 1998, about 3,700 permits were issued, about 35 percent of them for motorized vessels. Commercial outfitters currently licensed to provide trips in Yellowstone include 15 for canoeing and kayaking, 6 for motorized boating, and 62 for fishing.

THREATS TO WATER QUANTITY

Through agreements reached with the state of Montana and Idaho, the NPS has sought to ensure that park ground and surface waters are sufficiently protected to maintain the natural hydrologic regimes and the landscapes that depend on them. Because state and private demands for water generally lie downstream from the park, the water quantity flowing into Yellowstone is generally not a concern. However, in the Soda Butte Creek drainage near the park's northeastern corner, upstream users claim water rights and leaching from historic mines still pollutes the water. The NPS has contracted with the U.S. Geological Survey and the Montana Bureau of Mines and Geology to describe the geohydrology of Soda Butte Creek upstream of the park boundary. This report will improve our ability to assess potential impacts to stream flow from outside groundwater development. It will provide important information, but only for the portion of the park that lies within Montana.

The potential also exists for depletion of the park's groundwater resources as a result of oil and gas or geothermal drilling outside park boundaries. (See "Geothermal Features," page 2–10.)



THREATS TO WATER QUALITY

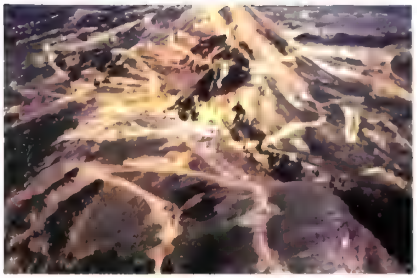
Although the park's water resources as a whole are believed to be in excellent condition, both internal and external human activities could affect water quality and the wildlife that depends on it. Limited water quality sampling has occurred in a few of the park's remote but popular backcountry camping areas. Backcountry waters have not been surveyed for *giardia*, but water purification advice is given to backcountry users as a precaution.

Internal threats Although the park takes steps to prevent potential pollution sources from affecting its water, continued monitoring is essential. Ground water wells are used to monitor water quality near the park's sewage treatment plants at Fishing Bridge, Grant Village, Madison, and at Old Faithful, where incomplete treatment has resulted in nitrogen and chlorides being released into the groundwater (see "Energy, Utility, and Waste Management Systems," page 7–30). Water quality could also deteriorate as a result of:

- leaking of underground petroleum storage tanks and spilling of petroleum products or other hazardous materials along roadways;
- sedimentation from erosion of unplanned social trails, stock use, and from road maintenance and construction projects;
- pollution from recreational boating and from backcountry toilets near lakeshores and streams;
- leaching from abandoned dumps;
- pollution from pesticide use; and
- deposition in snowpack from snowmobile emissions.

External threats. From 1933 to 1953, ore was intermittently processed for gold and silver extraction at the McLaren mill near Cooke City, Montana, about five miles upstream from the park's northeast boundary. An estimated 150,000 cubic yards of mine waste containing arsenic, copper, iron, lead, and zinc have been stored on a 10-acre site on the Soda Butte Creek valley floor. In 1950, tailings from an impoundment failure were washed more than 15 miles downstream into the park, where they remain evident and toxic. Several remedial actions have been taken over the years to stabilize the impoundment; however, reduced invertebrate populations and fish with elevated tissue copper concentrations evidence continued influence and degradation of park resources. The site needs restoration to prevent continued degradation of water quality and life forms.

In the 1990s, a large gold, silver, and copper mine was proposed at the headwaters of three drainages, including Soda Butte Creek. If permitted to operate, the mine might have been a boon to the regional economy and quadrupled the population of tiny Cooke City, Montana. But the sulfuric acid which is produced when mineralized rock containing sulfur is exposed to air and water could have leached toxic heavy metals, such as copper, lead, zinc, cadmium, and manganese, into ground and surface waters, harming aquatic life. Fortunately, the federal government agreed to trade up to $65 million in assets to Crown Butte Mines, Inc., in exchange for the mine properties, $22.5 million of which is held in escrow for cleanup of pollution attributed to the previous mining site. In August 1998, the New World Mine lands were formally transferred to the U.S. Forest Service.



Program Needs

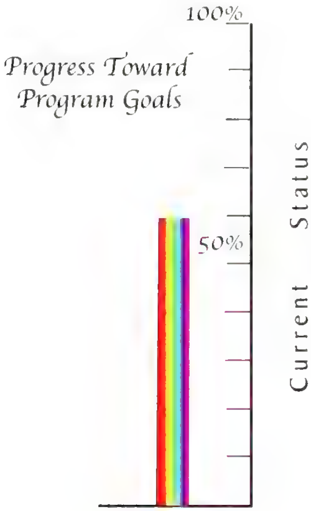
- Inventory and monitoring. It is essential to have baseline data to determine whether any changes are occurring in water quality and quantity because of internal or external disturbances. Park maintenance staff have amassed more than 20 years of groundwater data from sewage plants in the Fishing Bridge, Grant, Madison, and Old Faithful areas. Until they closed their office in the park in 1996, the U.S. Fish and Wildlife Service (USFWS) periodically collected chemical and biological data on more than 600 streams and 100 lakes. Along with fisheries management, these responsibilities have been absorbed by park staff while base funding has declined. Additional funding is needed to test groundwater quality and to expand chemical and biological surveys in streams and lakes, particularly in heavily-used backcountry areas, lakes with motorboat operations, and popular "hot-pots."

- Additional expertise. The park needs professional staff with training in geothermal geology, hydrology, and aquatic ecology to oversee the scientific programs required to protect Yellowstone's physical resources. (See "Fish and Other Aquatic Resources," page 3–28.)

- Upgrade infrastructure. Funding is needed to replace and upgrade the infrastructure supporting developed areas. Ground and surface water contamination from park developments are likely if infrastructure is not improved. Many of the park's sewage systems are worn out and could fail at any time, including those at Madison, Norris, Tower Falls and Old Faithful, where the treatment plant is already causing contamination problems. (See "Energy, Utility, and Waste Management Systems," page 7–30.)

LAKES, STREAMS, AND GROUNDWATER

STEWARDSHIP GOALS	CURRENT STATE OF RESOURCES/PROGRAMS
Lakes and streams are free-flowing and pristine, providing high-quality recreational opportunities for public enjoyment.	Park rivers remain free-flowing and water quality in most lakes and streams is thought to be high, but monitoring is irregular. Visitors fish many waters and boat on lakes; aquatic species persist.
Hydrologic systems and groundwater quality and quantity are monitored and maintained at pre-settlement levels.	Water quantity is generally free from upstream use; proposed mines and geothermal drilling outside the park have generated interest and political support to settle specific issues, but no long-term legislative protection for hydrothermal systems.
Human uses and facilities are monitored and have minimal impact on water quality and quantity.	Outdated wastewater treatment and collection systems threaten groundwater purity.
Professionally trained staff oversee program to monitor, interpret, and protect ground and surface waters within and entering the park.	The park lacks the staff and inventory and monitoring systems needed to address internal and external threats to water quality and quantity.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 14,500
Non Recurring Funds	
One-time Projects	$ 7,600
Staff	0.4 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Vegetation

Much of Yellowstone's beauty comes from the tapestry of color draped across its mountains and valleys—the yellowish green, dark green, and darker bluish green of young lodgepole pine, spruce, subalpine fir, and Douglas-fir that stand in contrast to the gray of alpine ridges, the rich bright green of meadows, an occasional splash of autumn yellow from aspen, and the browns and blacks of burned forest. These different plant communities provide food and homes for animals that range from insects to grizzly bears. An animal's presence is often a direct result of the plant species growing in the area.

About 80 percent of the park is covered by forests, with lodgepole pine usually dominating. Meadows constitute an additional 15 percent of the vegetation cover. The most extensive non-forested areas are in the lower elevations in the north, which serves as part of the winter range for elk, bison, and other ungulates. Detailed park vegetation maps are available for scientists' and managers' use.

The unique plant communities in geothermal areas reflect the varying chemistry and heat regimes in these remarkable habitats. Ross's bentgrass, found in the geyser basins along the Firehole River, and Yellowstone sand verbena, which grows along the shore of Yellowstone Lake, have been found nowhere else in the world.

PLANT PESTS AND EXOTIC INVADERS

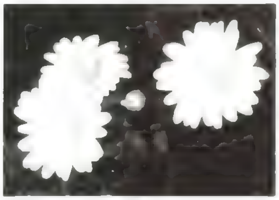
In recent decades, the greatest human influence on the park's vegetation has been the introduction of at least 170 exotic species. Since most people cannot distinguish them from native plants, the exotic plant problem in the park is largely invisible to visitors. Not all of these non-native plants pose a significant known threat to native species, but many, such as common timothy and Kentucky bluegrass, are highly invasive and can substantially alter native plant and associated animal communities in ways we do not yet completely understand.

LEAST WANTED WEEDS

Yellowstone cooperates with surrounding states, counties, and other federal agencies in efforts to control non-native plants, including species considered noxious because they may replace native diversity with monocultures that are unpalatable to both livestock and wildlife. Control efforts may include the use of biological controls, such as insects that feed on the unwanted plants, and genetically altered material to control non-native invaders.

A top priority on western rangelands is restraining the widespread knapweeds that can displace virtually all other species in an area. The four species of knapweed that are found in the park are priorities for control action. Herbicides are fairly effective against knapweed but can be cost-prohibitive because of the seeds' ability to remain dormant for up to 10 years. This requires annual reapplication of chemicals, which must be carefully chosen and applied to minimize adverse effects on non-target species, waters, and soils.

With so many invader species, the park must be realistic and target those that most threaten native resources and for which control is likely to be successful.



ENVIRONMENTAL INFLUENCES

Yellowstone straddles the Continental Divide halfway between the equator and the north pole. Most of the park lies between 7,000 and 9,000 feet, in a subalpine zone. The timberline appears at about 10,000 feet, and many peaks extend higher. Its climate is characterized by long cold winters and short cool summers. Frost and snowfall can occur anytime of the year at the higher elevations. The mean monthly temperature at Yellowstone Lake ranges from 10.7° F to 55.2° F during the year and averages 32.8° F.

Although the southwest corner receives about 70 inches of precipitation a year, most of the park receives between 30 and 50 inches, depending on elevation; the northern portion is semi-arid, receiving 13 to 15 inches a year. Nearly half of the year's total precipitation lies in the snowpack on the first of April and is released into the soil and surface waters over the next three months. Rainfall is usually insufficient to replace water that evaporates or is drawn from the soil by plants, causing soils to dry out during the summer. In years of low winter precipitation, drought conditions usually prevail. These factors greatly influence which plants can grow in the park.

Although the full extent of exotic plant infestations in the park is not known, they are heavily concentrated along roads, trails, and in developed areas. Ground-disturbing activities tend to promote the establishment of exotic vegetation that can eventually spread to backcountry areas. The seeds of exotic plants become lodged in the crevices of cars, trucks, or construction equipment and fall out as vehicles travel through the park. They also arrive in infested hay used to feed stock, in sand and gravel used for road projects, or in the mud on someone's shoes. Seeds can pass through an animal's digestive system and be deposited miles from the nearest road.

Although elimination of all exotic plants is not feasible, the park has developed a program to identify the species that pose the most serious threats and to focus on areas that offer the best prospects for successful control efforts. The program emphasizes the education of park staff and visitors, prevention of exotic plant establishment, and plant control by hand-pulling, mowing, and the application of approved herbicides. The Federal Lands Highway Program, which has disturbed hundreds of acres during park road reconstruction, has been a major source of funding to control exotic plants.

In 1998, more than 140 park staff and 100 volunteers assisted with some aspect of exotic plant control, treating 33 different species on more than 2,000 acres of land. To learn more about the ecology and effects of exotic plant infestations, park staff are monitoring 57 long-term study plots along roadsides, and a mapping project involving 12 federal, state, and county agencies has been carried out to help managers assess the threats to Yellowstone from uncontrolled weeds on adjacent lands.

Efforts to control some invaders, such as Dyer's woad, have been effective primarily due to early recognition and eradication. Other species, such as Dalmatian toadflax, escaped well before their effects on native plant communities were recognized. Because of the magnitude of the threat posed by so many non-native species with different life histories, more research is needed to determine the long-term efficacy of control efforts on many species. A plan to prioritize and attack weed invaders has lacked funding for full-scale implementation.

Although attempts to control epidemic levels of tree-killing insects and diseases were made until the late 1960s, native pests, such as pine beetles, are now recognized as a natural part of the ecosystem. Yet the threat posed by introduced blister rust fungus to limber and whitebark pine trees, which are fairly limited in their distribution, is a source of renewed concern (see "Inventory and Monitoring," page 5–9). Whitebark pine nuts are an important fall food source for wildlife such as red squirrels, Clark's nutcrackers, and grizzly bears.

REVEGETATION

The park contains about 50 miles of abandoned roads and bridges, and more than 4,000 acres of obsolete debris dumps, gravel pits, decked log piles, construction camps, visitor use facilities, and sewer systems that were left behind when old facilities were closed. Aside from being unsightly, these sites pose safety concerns and create an ongoing disturbance to natural processes. Some abandoned dumps may contain hazardous substances, such as PCBs, that could affect surface and ground water sources and aquatic life. Erosion from gravel pits and quarries has resulted in sedimentation of adjacent creeks and, in some cases, impedes trout spawning runs. Vegetation has been disturbed by slope erosion from road cuts, by illegal or careless off-road travel and parking, and by motorized vehicles that are necessary to service telephone and power lines.

A portion of the northern winter range known as the Boundary Lands Area, which was acquired by the park in the 1930s, shows substantial effects of early homesteads, irrigation, cattle grazing, hay production, and gravel mining. Little progress has been made in restoring natural contours or in reestablishing the native plant species in the area.

Many disturbed areas of the park have been left to revegetate naturally, with limited success. The vegetation is stunted or sparse because of soil compaction or poor growing conditions, and native plants are sometimes displaced by exotic species. Some of the disturbed sites may be of historic interest and must be professionally evaluated to determine what type of cleanup or site rehabilitation is appropriate. Cooperative efforts, such as that done with Montana to restore the site of a small abandoned coal mine on McMinn

Bench, have been cost-effective and popular with state and federal partners. (See "Restoration of Mining Sites," page 2–10.) In the 1980s, the park's landscape architects established a native seed bank and nursery stock for use in revegetating disturbed sites, which costs on average $1,200 per acre.

RARE PLANTS, WETLANDS, AND RIPARIAN ZONES

Among the plants of special concern that have been listed by the Natural Heritage Programs of the surrounding states are about 100 species known to occur in the park. Two of these species are endemic to the park: Yellowstone sand verbena (*Abronia ammophila*) and Ross' bentgrass (*Agrostis rossiae*). Information on the presence and status of these rare native species and other plants is needed to protect them from impacts in popular visitor use areas and construction projects within the park and on lands outside park boundaries.

Wetlands are being documented and mapped within a 400-foot wide corridor along the Grand Loop road as part of the resource inventories needed for road reconstruction, and the U.S. Fish and Wildlife Service has prepared National Wetland Inventory maps on a 1:24,000 scale. However, little is known about wetlands outside the road corridor.

Riparian corridors have been a subject of little research and much debate. When a major research initiative on the northern range was launched in the 1980s, it focussed on elk and grassland dynamics because of funding limitations. A series of studies is needed to investigate the relationships among elk, moose, beaver, and the landscape's woody vegetation—aspen, cottonwoods, and willow.

Program Needs

- INVENTORY AND MONITORING. In recent years, increased surveys for endemic species have been made possible by funding from Canon, U.S.A., Inc., secured through the National Park Foundation. However, the park needs to establish a viable program to systematically inventory and monitor plant resources, with a special emphasis on undisturbed areas, wetlands, and the less conspicuous plants such as fungi, mosses, liverworts, and lichens.

- STAFFING. The park employs a vegetation management specialist and, for part of the year, a botanist who also serves as curator of the herbarium. Much of their time must be devoted to special projects such as road reconstruction surveys and consultation. The park would greatly benefit from additional staff to assist with plant surveys, monitoring, and management activities such as "hazard tree" removal. Yellowstone's conifers tend to be shallow-rooted and therefore prone to falling or being blown down on to roads, buildings, trails, and campsites. Specially trained staff are needed to identify and remove high-risk trees from visitor use and developed areas. Additional staff could also develop a cyclic revegetation program, collecting and generating plant cuttings, seeds, and trees for use in landscaping and replanting projects in park picnic areas, campgrounds, roadsides, and historically disturbed areas.

- CONTROLLING INVASIVE PLANTS. More funding is needed to monitor and control non-native plants that threaten native species. The success of control efforts should be regularly evaluated so that the results can be used to determine the most effective strategies.

- RESEARCH. Further research is needed to answer site-specific questions such as whether mountain goats influence high-elevation native plant communities and how wildlife use affects thermal areas. We also need to improve our understanding of the ecology of riparian and woody plants, and how and where exotic vegetation is most likely to spread.

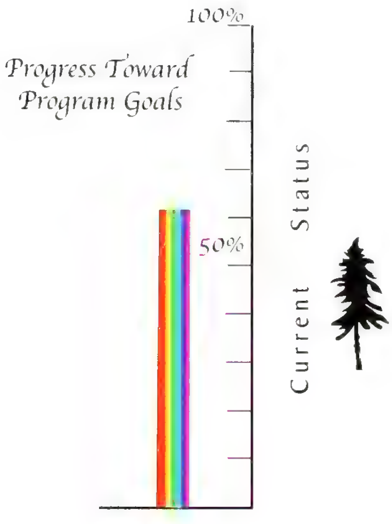
VEGETATION

STEWARDSHIP GOALS

- Professionally trained experts oversee programs to inventory, monitor, protect, and interpret native plant species and communities.
- Botanists survey, map, and protect wetlands and rare and sensitive plants and habitats parkwide.
- Non-native species and other threats to native plant communities are addressed through integrated pest management programs.
- Staff maintain a program of native species landscaping and revegetation in areas of human-caused disturbance.
- Visitor safety and scenic vistas in high-use areas are enhanced where necessary through vegetation management.

CURRENT STATE OF RESOURCES/PROGRAMS

- A small professional staff oversees vegetation management and catalogues plants in the park herbarium; natural processes such as fire, floods, and native ungulate grazing occur largely unimpeded by humans—with controversial results.
- Park vegetation, habitat and cover types, and wetlands are mapped and available in GIS format. Some rare plant surveys have been done, but limited resources are devoted to studying riparian plant communities or rare habitats.
- Exotic plant infestations increase, presently outstripping our ability to study and control effects on native plant and animal communities.
- Cooperative partnerships have resulted in a native plant propogation program used for revegetation of constuction sites.
- Hazard trees are removed as time and staffing allow, but a more comprehensive management program is warranted for safety in high-use areas.



1998 FUNDING AND STAFF

Recurring Funds Yellowstone N.P. Base Budget	$ 76,500
Non-Recurring Funds One-time Projects	$ 76,550
Staff	3.4 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Wildland Fire

For most of the park's history, "preservation" of its resources was thought to mean that fires should be put out. As forest science research contributed to a better understanding of the role that fire has played in creating the landscape, people realized that natural fire is itself a part of the ecosystem they were trying to preserve. When fire was suppressed in Yellowstone, the natural landscape was altered and its diversity diminished.

Fires perform many natural functions, including:

- opening up closed-canopy forests to species that need sunlight;
- natural reseeding of up to a million lodgepole pine seeds per acre;
- promoting plant decomposition;
- halting the advance of trees into grassland areas;
- controlling the spread of plant diseases and insect infestations;
- creating a variety of habitat types for wildlife; and
- increasing the rate of nutrient cycling on land and water.

Similar to wildlife mortality, which varies from year to year but may be elevated during an unusually severe winter, fire is an episodic force that occurs under optimal fuel and weather conditions. Between 1972, when Yellowstone began using a natural fire management plan, and 1987, 234 fires burned 35,000 acres—mostly in two dry years, 1979 and 1981. Then in 1988, the extended drought resulted in conditions not seen in the history of Yellowstone National Park. Over the summer, 6 human-caused and 39 lightning-caused fires that started inside the park burned 301,080 acres. Three human-caused and three lightning-caused fires ignited outside park boundaries burned 492,800 acres. Together, a total of 793,880 acres were burned—nearly 36 percent of the park.

Most visitors, and even firefighters from other regions of the country, are unaware of Yellowstone's fire ecology. While large fires have burned at average intervals of 25 to 60 years on the low-elevation grasslands of Yellowstone's northern range, research into fire history indicates that large conflagrations burned extensive acreage at intervals of 250 to 400 years in the conifer forests that cover much of the Yellowstone plateau.

Scientists believe that fires of the same intensity (though not of the same size) as those of 1988 swept across Yellowstone in the early 1700s. While lightning causes fires every summer, only rarely are all the conditions right to support large fires. In 1998, the park had 23 fires that burned a total of 125 acres.

Firefighting itself has environmental consequences: soil and vegetation are displaced by the creation of helispots and the use of bulldozers and handtools to build firelines; chemical retardants may have short-term fertilizing effects on vegetation and get into streams where they may kill fish; water removed for dumping on fires may draw down ponds and disturb natural aquatic processes.

Learning from the 1988 fires. Much research has been completed by park staff and independent researchers to determine the effects that the fires have had on many components of the ecosystem—aquatic systems, soil, vegetation, socioeconomics, and specific animal species ranging from elk to insects. It is known that the standing and fallen burned trees that are now a conspicuous part of Yellowstone's landscape are providing important habitat for birds, insects, and small mammals, and that they will eventually decay, recycling nutrients for the next generation. It's expected to take up to 30 years for most standing burned trees to fall, and close to a century for the tall forests to be replaced.

Nearly 60 post-fire research projects were initiated after 1988. Preliminary results from more than 30 studies were presented at and published in proceedings from Yellowstone's 1993 second biennial science conference, which focussed on the ecological implications of fire in greater Yellowstone. However, most of the research was terminated prematurely due to budget shortfalls, and many studies should be renewed to take advantage of the valuable early post-fire work.

Although research demonstrates that on the whole, Yellowstone's natural ecosystem did not suffer any long-term damage from the 1988 fires, it must be recognized that what may be beneficial to the ecological processes does not minimize the cost of such a fire in financial and human terms. One firefighter was killed outside the park, dozens of structures were damaged or destroyed, and the fires created a hardship for some people who live and work in the area.

Current fire policy. Because of the enormous public attention and controversy generated by the 1988 fires, several high-level task forces were assigned to review the National Park Service's fire policies and preparedness. While their recommendations reaffirmed the importance of natural fire in maintaining ecosystem health, they urged that additional guidelines be established to manage natural fires in national parks.

Under Yellowstone's current policy, every effort is made to suppress fires that are human-caused and most fires that threaten human life or property regardless of cause. Standard fire suppression tactics are used while endeavoring to minimize the effects of firefighting activities on the park's resources.

Naturally-ignited fires (usually caused by lightning) that do not threaten human life or property are permitted to burn only if they meet certain conditions pertaining to fire behavior, weather, and the moisture content of the vegetation. Each situation is reviewed daily to determine if the criteria are met and to make sure that adequate suppression resources are available to keep fires under control if necessary.

1988 Yellowstone Trial By Fire

Some fires in national parks are allowed to burn to meet management objectives encouraging natural processes. In the summer of 1988, much of Yellowstone's lodgepole forest was more than 250 years old and reaching its most flammable stage. During the severest drought in the park's history accompanied by strong winds, several lightning-induced fires in the park and several human-caused fires that started outside the park resulted in large-scale, stand-replacing fires.

As of July 21, after some 17,000 acres had been swept by fire, every effort was made to fight all fires regardless of cause, resulting in the largest firefighting operation in United States history. This endeavor, which cost more than $120 million and employed up to 25,000 people, was able to save human life and property, but probably had little impact on the fires themselves or on the acreage affected—about 1.4 million acres in the greater Yellowstone area, including about one-third of the park. It was a mere quarter inch of rain and snow in mid-September that stopped the advance of the 1988 fires—a humbling reminder of our limited ability to control natural forces.

FIRE LOOKOUTS: A PART OF OUR HISTORY

Before aerial detection began in the 1950s and remote fire weather monitors were installed in the 1980s, fire lookouts spent solitary summers watching for smoke from fire towers atop prominent peaks in the park. Five of these lookout stations still remain. Those on Mt. Sheridan and Mt. Holmes, built in 1935, have been restored; similar work is needed at the tower on Mt. Washburn, built in 1919, and Pelican Cone, which dates to the 1930s. At the three stations that are still used to support the fire management program, seasonal staff live in 15-by-15 foot glass homes from late June through September, scanning distant ridges with spotting scopes to locate fire starts. The fire guards radio in daily fire weather conditions and monitor storms that may threaten boaters on Yellowstone, Shoshone, and Lewis lakes. These bird's-eye perches also provide excellent opportunities to watch peregrine falcons soar and grizzly bears dig talus slopes for food. Fire guards provide information and interpretation to those who have the stamina to reach the top.

The Yellowstone ecosystem also includes six national forests, private property, and another national park where fire management objectives sometimes differ from those of Yellowstone. Cross-boundary fire management agreements were revised after 1988 with all of the national forests surrounding the park.

Fuel and weather monitoring. Since 1988, both human- and lightning-caused fires in Yellowstone have been relatively insignificant, but they fluctuate from year to year depending on environmental factors. While in 1994 Yellowstone recorded 64 fires that burned 16,345 acres (48 caused by lightning strikes and 16 human-caused, including 4 started from sparks from falling powerlines), the previous year experienced only 10 lightning-caused fires that burned less than one acre total. In cooperation with the Boise Interagency Fire Center, park staff use up-to-date monitoring systems and computer programs to predict fire danger.

The park has installed three Remote Automated Weather Stations in backcountry locations to transmit data on fire-related climate conditions to park headquarters. Fire management staff also monitor fuel loads and fire weather at stations located around the park. The hazard fuels management program aims to reduce the fire danger in selected areas by pruning or thinning targeted overstory trees and understory regeneration to reduce the continuity and the volume of fuels that could feed fires.

Fire management. Like other national parks with major wildland fire programs, Yellowstone receives funds from a servicewide fire management program. This FIREPRO money is used to support four permanent fire management positions, two subject-to-furlough positions, a seasonal crew, and part of the costs of a summer helicopter operation. A seven-person prescribed fire crew is also stationed at Yellowstone to support monitoring of natural fires and prescribed burns in the park and across the country. Each summer hundreds of employees in other occupations are trained in basic firefighting and other fire management skills. While Yellowstone had a relatively low incidence of fires in 1998, Yellowstone rangers and maintenance workers, along with the park's fire management staff and helicopter, assisted other parks and agencies in 56 fire management efforts, rescues, and emergencies such as Hurricane Georges from Canada to Mexico and Florida.

Program Needs

- UPGRADE PROGRAM. The servicewide fire management program has identified several additional staff needed to keep fire and aviation management plans updated and ensure a safe and effective fire management program for Yellowstone. With newly authorized FIREPRO funds, the park hired a lead fire monitor and a prescribed fire specialist in 1998. Additional fire management staff are still needed in order to maintain an effective program. While prescribed fire has been a management option for Yellowstone since the 1970s, in the future more planned ignitions may be used to create firebreaks and minimize the risk from smoke and wildfire, especially near structures and boundary areas.

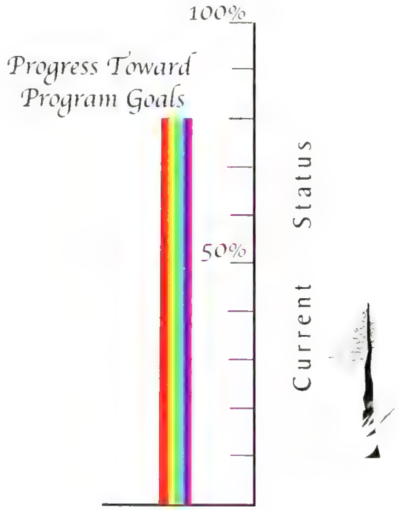
- UPGRADE EQUIPMENT. Substandard equipment needs to be replaced, including a 10-year-old vehicle that has logged more than 130,000 miles in the line of fire, and a 2-1/2 ton stakebed truck that supports helicopter and fuels management projects. The single biggest need is for improved radio communications for fire evaluation and suppression operations. The existing overused system often contributes to the risk; new initiatives to upgrade telecommunications parkwide may address this need. The acquisition of an additional wildland fire engine would greatly enhance our ability to respond to fires throughout the park (see "Telecommunications," page 5–16.)

- RESEARCH. Many fire-related research projects that were abandoned due to lack of financial support should be reinstated to assess long-term fire effects.

WILDLAND FIRE MANAGEMENT

STEWARDSHIP GOALS

- Naturally-caused fires play their ecological role in the park landscape, in keeping with approved resource management plans.
- Planned ignitions are used to complement naturally-occurring fires.
- A fully qualified fire management staff carries out fire and aviation management programs to protect human life, property, and where required, natural and cultural resources in the safest possible manner.
- Wildfires are suppressed in the most safe, cost-effective, and environmentally sensitive manner.
- Staff maintain proactive interpretation and public education programs on the ecological role of fire, wildfire risk and prevention, and safety.



CURRENT STATE OF RESOURCES/PROGRAMS

- Record fires swept greater Yellowstone in 1988, resulting in international attention, debate, education, and excitement in the research community. NPS fire management policies and plans were refined, but were reaffirmed as fundamentally sound.
- Prescribed fire is used on a limited basis such as for hazard fuel reduction and weed control; more research is needed on its application for restoration of historic fire frequencies.
- Fire and aviation management staff, equipment, and monitoring systems are modestly sufficient to run a professional and scientifically based program.
- The fire safety record is good, and managers apply "light-on-the-land" fire control techniques.
- Since 1988, education efforts have been more proactive, resulting in greatly enhanced public understanding of fire history and ecology. Fire danger and prevention programs are in place.

1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 620,000
Staff	15.5 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Wildlife

When Yellowstone was created to protect its unique geothermal features, wildlife was still abundant throughout much of the West and valued primarily as a source of sport, meat, and hides. Few observers foresaw the critical role the park would play in providing a sanctuary for wildlife, nor did anyone anticipate that bison, elk, bears, wolves, and other species would one day become a primary visitor attraction. Since the 1995 reintroduction of the gray wolf, the only wild animal known to have been completely eliminated from the park by humans, Yellowstone once again has an intact complement of native animal species, including 60 mammals, 12 fish, 6 reptiles, 4 amphibians, and more than 100 butterfly and 300 bird species. Instead of focussing on the protection of individual species, the goal has become preservation of the whole suite of predators, grazers, and scavengers native to this ecosystem. Though visitors are not guaranteed to see a favorite animal, the park provides an unparalleled opportunity to watch free-ranging wildlife interact in their natural habitat, largely free of the human influences so prevalent in other settings.

PRESERVING YELLOWSTONE'S WILDLIFE

Human effects. Compared to the effect of environmental influences such as a severe winter, human impacts on the park's wildlife are minimal, but they do occur. The possibility of sighting even elusive species such as wolves and bears means that roadside vegetation and soils at key viewing areas are damaged when vehicles try to jam into too small a space. If a parking area is enlarged and wildlife viewing is tacitly or overtly encouraged, the presence of people may affect both the animals being watched and other wildlife in the area. In the spring of 1997, the proximity of wolf watchers may have led to the failure of a trumpeter swan nest in the Lamar Valley and may have driven a wolf from her den prematurely, leaving the fate of her pups in doubt.

Other harassment and displacement of wildlife, even if inadvertent, probably occurs more often than we know. Boating, camping, hiking, fishing, and other popular activities, including simply driving along the park's roads, cause wildlife to modify their behavior and use of habitats. Only by careful monitoring of animal populations can we infer when human activities are causing too much stress to individual animals or to the health of their local populations. Outside the park, continued population growth and land development cause competition between humans and animals for living space.

During 1998, 88 large mammals are known to have been fatally struck by vehicles in the park; the annual average from 1989 to 1997 was 113. This tally does not include animals that may have been hit and died from their injuries later away from the road. Because of their large number, elk are the most frequent road fatalities, followed by mule deer. In 1998, no grizzly bears are known to have died from vehicle collisions in the park, but 2 wolf pups died after being struck on Highway 191, along the park's western boundary.

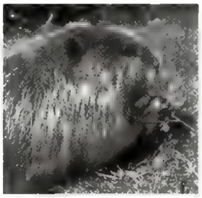
Poaching. Poachers are attracted to the Yellowstone area by the combination of trophy-class game animals, various rare or endangered species, and a relatively small chance of getting caught. Of particular concern are grizzly bears; although there has not been a known poaching of a bear inside Yellowstone National Park since the 1960s, grizzly populations are still threatened in the lower 48 states, and their pelts, claws, and organs can bring a high price. Fledgling raptors, including the prairie and peregrine falcons, also have a high market value, as do fur-bearing animals such as bobcats, marten, and coyotes.

From 1994 through 1998, Yellowstone's rangers documented 64 poaching cases—mainly elk and a few bison and deer—and approximately 150 additional cases involving destruction or possession of natural features, many of which involve removing wildlife pelts, horns, antlers, or claws for commercial purposes. Because of the large, remote area in which poachers can operate and the small number of rangers available to patrol it, rangers believe that much poaching goes undetected. Without increased law enforcement, little stands in the way of poachers and their prey.

WILDLIFE RESEARCH

Most of the work done by the park's eight full-time biologists and dozens of visiting wildlife researchers has been focussed on the most conspicuous or problematic species, or those that have been officially identified as threatened or endangered under the Endangered Species Act—bears, birds, bison, elk, and wolves—animals that are also of the greatest interest to the public. More information about the status of these animal populations in the park is provided in the following sections of this chapter.

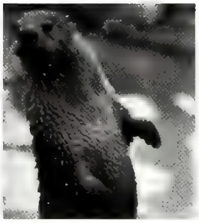
Research on coyotes, which are abundant throughout the park despite an apparent reduction since the return of the wolf, has focussed on the northern range and been dependent on the work of researchers from outside the park who have been collecting data since 1988. But relatively few studies have been done of many other animals that have important roles in the Yellowstone ecosystem, including reptiles, amphibians, invertebrates, and small mammals.



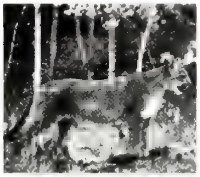
Also on the park's long list of seldom studied wildlife:

- Limited historical information is available on beaver throughout the park, and only since 1989 have systematic surveys been done to track long-term population trends for this largest North American rodent.

- Badgers, weasels, river otter, pine marten, and great horned owls are often seen in the park, but no quantitative population data has been recorded.



- Raccoons are only occasionally seen, but sightings and tracks suggest their presence may have increased in recent years.
- Mountain lions are present, and their effects on prey such as elk and deer have been documented since 1987, in the first study of Yellowstone felids.



- Bobcats and wolverines are seldom seen in the park, and red foxes only occasionally. The distribution of these animals and their effects on prey populations are unknown.

- Lynx are even more rarely seen; fewer than 60 observations have been reported in the park's entire history. Unfortunately, this very absence of information about lynx has meant that proposals for protection under the Endangered Species Act have lacked sufficient data on which to base a decision, but listing is expected by 2000.

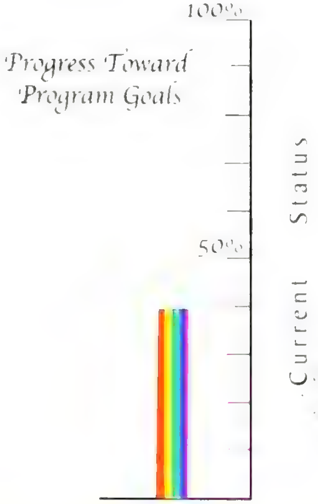
Program Needs

- MONITORING. To comply with the 1998 Omnibus Parks Act, the park needs a systematic program to inventory and monitor all of its wildlife populations, and make the resulting research data available to park staff and scientists. To help overcome the fiscal and logistical limitations that have curtailed progress in the past and address the backlog of information needs, park staff must make more use of researchers from other organizations and the many students who seek opportunities to work on wildlife projects in Yellowstone.

- EDUCATION. Efforts to educate park visitors about animal ecology and behavior, especially in relation to humans, must continue. The park needs a full spectrum of methods —ranger contacts, exhibits, publications, signs, and the park website—and needs to try newer, more creative approaches to managing wildlife in relation to human activities.

WILDLIFE PROGRAMS

STEWARDSHIP GOALS	CURRENT STATE OF RESOURCES/PROGRAMS
A full complement of biologists inventory and monitor the spectrum of park wildlife and habitats, and oversee research into wildlife interactions with other animal and plant species.	While charismatic species receive much research and management attention, less appreciated species and communities are little studied due to limited staff expertise, time, and funds.
The park identifies, protects, and if necessary restores populations, especially those of rare or endangered wildlife.	Two million acres of largely undisturbed habitat appears to support viable populations of most native species, and much time and money has been spent on those listed as endangered. The park lacks staff to address rare species that are candidates for special protection.
In cooperation with park partners, staff comprehensively monitor, manage, and interpret human-wildlife interactions, including conflicts and threats to human health and safety, and disturbance to animals and their habitats.	Staff manage human-wildlife interactions as problems arise, addressing specific human safety and property damage concerns, wildlife displacement and behavioral change. Few comprehensive monitoring programs are in place; interagency groups address some species.
Comprehensive, proactive, interpretive efforts focus on educating the public about habitats and how to conserve long-term biodiversity.	Interpreters and resource specialists provide programs and printed information on wildlife and their habitats as time allows, and mostly to small audiences.



1998 FUNDING AND STAFF

Recurring Funds		
Yellowstone N P Base Budget	$	43,000
Cost Recovery Special Use Fees		
Non-Recurring Funds		
One-time Projects	$	11,200
Staff		0.8 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan

Bears

Yellowstone has come a long way since the evening program for visitors was a trip to the dump to watch bears feast on hotel leftovers. However entertaining it may have seemed, the consequences were not altogether amusing for either the audience or the animals. Having lost their natural fear of people, these bears became bold in pursuing human food, resulting in frequent visitor injuries, property damage, and the killing of "problem" bears. But since the early 1970s, when the last park dump was closed and strict prohibition of roadside feeding began, the park's black and grizzly bears have survived on the plants and animals that are their natural foods and they have exhibited more natural bear behaviors.

Yellowstone's bear management office is staffed by two full-time wildlife biologists, who are typically assisted during the summer months by several seasonal employees or volunteers. This staff is also responsible for the capture of other wildlife for management purposes, wildlife health sampling, and roadkill removal. More than 95 percent of their budget is spent on personnel; the remaining funds must cover supplies, operational costs, and upgrading equipment such as bear traps and radiotelemetry gear.

The routine duties of many other employees are also essential to preserving bear populations and minimizing the possibility of bear-human conflicts. Scientists study seasonal bear use of the variety of habitats found throughout the ecosystem; maintenance staff help to ensure the elimination of food attractants from developed areas; and park rangers and interpreters report bear activities and educate visitors about safe behavior in bear country.

"Bear jams" still occur when a bear becomes visible from a park road. Traffic comes to a halt, and rangers must be summoned to keep people at a safe distance. But with bears no longer coming forward for handouts, they are seen by only a small portion of today's visitors, causing some to believe the number of bears has declined. Although both bear sightings in the park and hunting records outside the park suggest that black bear populations are in good shape, research is needed to scientifically validate population status and trends. Only one study of black bears has been done in one portion of the park, and that was 30 years ago. The park's grizzly bears have been the subject of far more research.

THE GRIZZLY BEAR: STILL THREATENED?

Although grizzly bears once roamed from Mexico to the Arctic Ocean, Yellowstone is one of just two major areas south of Canada still inhabited by grizzly bears. Grizzly bears in the lower 48 states have been listed as threatened under the Endangered Species Act since 1975. Much of the designated grizzly bear recovery area lies in the six national forests that surround the park, which are subject to a broader range of uses than park lands. Roads constructed through grizzly habitat result in significant bear displacement and mortality due to increased human contacts. Despite the large volume of traffic through the park each summer, Yellowstone's backcountry provides an essential roadless, non-hunted sanctuary in the center of occupied grizzly bear range.

INTERAGENCY RESEARCH AND COORDINATION

The Interagency Grizzly Bear Committee was established in 1983 to coordinate grizzly bear management among state wildlife agencies and national parks and forests. Interagency cooperation has helped to bring about widespread use of bear-resistant trash receptacles, better opportunities to relocate nuisance bears away from livestock grazing allotments, and more consistent public information and regulations.

Much of what we have learned about Yellowstone grizzly bears since 1974 has come from research conducted or coordinated by the Interagency Grizzly Bear Study Team (IGBST). In cooperation with park, forest, and state wildlife managers in Idaho, Montana, and Wyoming, the IGBST has monitored bears throughout the recovery zone, estimated their population size and trends, and enhanced our understanding of grizzly life history, ecology, and behavior in relation to humans and to other wildlife species. Even if grizzlies can be removed from the endangered speices list, continued monitoring of the Yellowstone population will be needed .

Debates about how many grizzly bears there are and whether the Yellowstone population can survive over the long-term despite increasing human development and use of the ecosystem have been contentious. Some people believe the animal is doomed to extinction, while others think it has become so numerous that grizzly hunting should be permitted outside the park. Each year, about 40 to 50 radio-collared grizzlies are monitored to track population trends and learn about bear habitat use. It is neither practical nor beneficial to the survival of these wild animals to try to trap, mark, and count every bear.

As a result of an intensive bear management program that began in 1970, grizzly and black bears are now living naturally in the park with far fewer bear-human conflicts, despite a dramatic increase in human visitors. Although conflicts between bears and people will continue to take place occasionally, most can be prevented if park staff and visitors know how to respond when an encounter occurs. Outfitters, conservation groups, recreationists, and residents of greater Yellowstone share credit for promoting new attitudes toward people living and working safely in bear country.

An Undevelopment Plan for Habitat Restoration

As early as the 1960s, park biologists were concerned about the proximity of bears to park visitors, especially in high quality habitats such as the riparian zones on the north shore of Yellowstone Lake. The area around Fishing Bridge, where the Yellowstone River flows north from the lake, was historically the most frequent site of bear-human conflicts, resulting in both human injuries and the removal of bears from the wild. This recurrent problem ultimately led to the decision to eliminate a 310-site campground located at Fishing Bridge. Despite the absence of funds allocated for this purpose, park staff from all divisions launched the Fishing Bridge campground restoration with a voluntary workday in September 1991 and gradually removed all fire grates, restroom fixtures and buildings, water spigots, signs, and asphalt. By September 1997, native trees and grasses obliterated the former campground loops, and 72 acres had been restored to natural conditions. Other disturbed sites have been identified for habitat restoration, partly as mitigation for increasing development pressures elsewhere in and around the park. But complete restoration will require additional funds, and bring continued controversy.

Future Outlook

The best available research suggests that the grizzly population is growing, with bears increasingly distributed throughout the greater Yellowstone area. Interagency scientists believe that a healthy grizzly bear population can be sustained in the ecosystem, but it will take the continued cooperation of federal and state agencies, an informed public, and staff trained in how to deal both with bears and the public. Even if the grizzly bear is "delisted" as a threatened species, it will always be necessary to manage bears and humans in order to prevent conflicts that could result in injury to either species.

HOW MANY GRIZZLY BEARS ARE THERE?

Because females with cubs are the easiest bears to find and distinguish between, they are used to estimate the size of the bear population. In 1996, scientists estimated with 90 percent confidence that the ecosystem's grizzly bears numbered between 280 and 610 bears, and in 1998, 70 cubs were born to 35 females. The average litter size appears to have increased slightly since the mid-1970s, to approximately two cubs per litter.

Although the population estimate may seem very loose, it has met the statistical rigor and peer review required for publication in *The Journal of Wildlife Management.* A more precise count of bears would require an expensive bear-trapping effort that could be injurious to both the bears and to wildlife biologists. Biologists are investigating a non-intrusive method for estimating population size using DNA analysis of bear hair samples as part of a cooperative study with the Yellowstone Grizzly Foundation, the Interagency Grizzly Bear Study Team, the Wyoming Game and Fish Department, and the Shoshone and Bridger-Teton national forests. Much of the funding for this research is being provided by Canon U.S.A., Inc.

Bear Problems	Annual Average	
	1960s	1990s
Bears that must be relocated away from the frontcountry	More than 100 black bears and 50 grizzlies	1 black bear and 1 grizzly bear
Bears that must be killed or removed from the park	33 black bears and 4 grizzlies	1 black bear and 1 grizzly bear
Human injuries in the park	45 injuries	1 injury
Property damage in the park	219 claims	8 claims

Efforts to map habitat conditions and to develop quantitative techniques with which to monitor long-term trends in bear use of habitat have been expensive and time consuming. Better tools, such as data-intensive computer models and Global Positioning Systems (GPS) collars, will become available for use by ecosystem managers and scientists, but they will require dedicated expertise to keep up with the new data and interpretations.

While black bears have benefitted from management efforts aimed primarily at recovering the threatened grizzly, Yellowstone has had no research on black bears since the 1960s. The lack of scientific information about black bear numbers and behavior is a major gap in our resource management program.

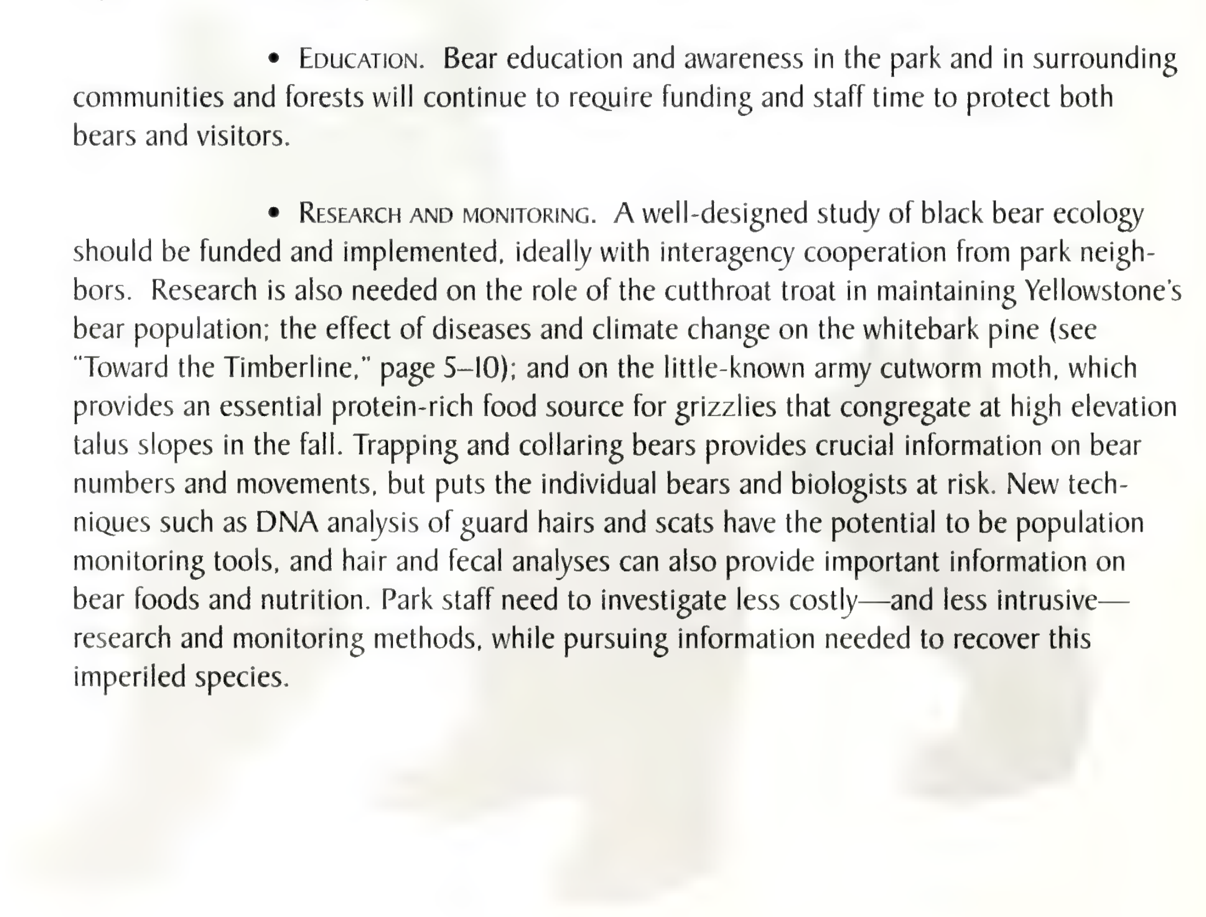
Program Needs

Yellowstone National Park has historically provided significant funding for grizzly bear research and for protection of their population and habitat—efforts that will continue to require highly trained staff and dollars.

- Habitat protection. Park plans call for limiting visitor facilities to existing developments, keeping more than 95 percent of Yellowstone's natural landscape relatively undisturbed. Restoration of significant habitat, such as that near Fishing Bridge, is still a goal, as is continued use of Bear Management Areas, instituted in the early 1980s for the protection of both bears and visitors. These important habitats may have restrictions placed on visitor use during certain hours of the day or times of the year, and on the size of groups travelling in the area. However, management of these areas needs to be reassessed based on the latest research findings and the effects of the fires of 1988, which changed plant community patterns and diversity.

- Education. Bear education and awareness in the park and in surrounding communities and forests will continue to require funding and staff time to protect both bears and visitors.

- Research and monitoring. A well-designed study of black bear ecology should be funded and implemented, ideally with interagency cooperation from park neighbors. Research is also needed on the role of the cutthroat troat in maintaining Yellowstone's bear population; the effect of diseases and climate change on the whitebark pine (see "Toward the Timberline," page 5–10); and on the little-known army cutworm moth, which provides an essential protein-rich food source for grizzlies that congregate at high elevation talus slopes in the fall. Trapping and collaring bears provides crucial information on bear numbers and movements, but puts the individual bears and biologists at risk. New techniques such as DNA analysis of guard hairs and scats have the potential to be population monitoring tools, and hair and fecal analyses can also provide important information on bear foods and nutrition. Park staff need to investigate less costly—and less intrusive—research and monitoring methods, while pursuing information needed to recover this imperiled species.



BEAR MANAGEMENT

STEWARDSHIP GOALS

Working together with neighbors and partners, Yellowstone recovers and maintains a wild population of the threatened grizzly bear in the ecosystem.

Black bear populations and their habitat are preserved throughout the park.

Professionally trained staff participate in a cooperative program of professional research and management, using the best available science on the animals and their interactions with habitat, humans, and other species.

Park staff work with neighbors and partners to minimize bear-human conflicts and interactions based on food and garbage, and promote public safety through proactive management and education.

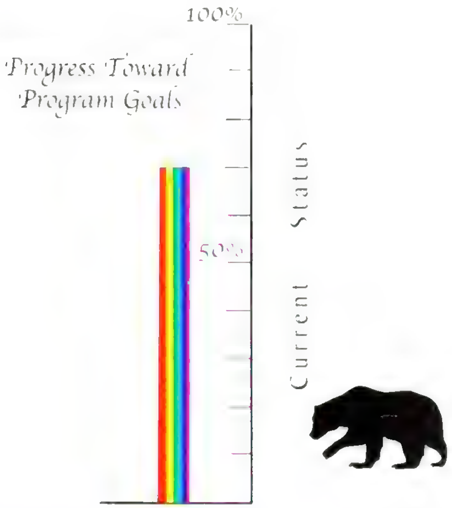
CURRENT STATE OF RESOURCES/PROGRAMS

The grizzly bear population is increasing in number and distribution across the ecosystem, but habitat loss is an ongoing management concern.

Scientific research is needed to assess the state of the park's black bear population and ensure its long-term protection.

Research has provided increasingly sound grizzly bear estimates and data on bear use of habitat, but at a high cost; less expensive and less intrusive techniques are needed.

The incidence of bear-human conflicts and associated bear relocations and removals has declined greatly, decreasing the risk to bears and people.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 115,300
Cost Recovery/Special Use Fees	
Non-Recurring Funds	
One-time Projects	$ 25,300
Staff	2.5 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Birds

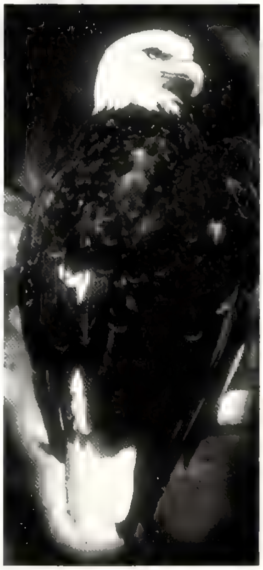
Since Yellowstone was established, 303 species of birds have been documented in the park. The list includes 148 species that nest in the park, one of which was until recently classified under the Endangered Species Act as endangered (the peregrine falcon), and one as threatened (the bald eagle). The whooping crane is also listed as an endangered species, but although these birds are found in the park, it is unclear whether they ever nested in Yellowstone. Intensive monitoring is also conducted for other birds of special interest, such as trumpeter swans, ospreys, common loons, harlequin ducks, great blue herons, great gray owls, and colonial nesting birds. The discovery of non-native lake trout in Yellowstone Lake has made bird monitoring especially important as we watch for effects from the possible decline of native cutthroat trout, an important food for many bird species.

The park staff includes one full-time ornithologist. Other park employees and volunteers assist with specific monitoring projects as needed.

WHAT HAS BEEN ACCOMPLISHED

Peregrine falcons. As part of a program sponsored by the Peregrine Fund, captive-bred peregrine falcons were released in Yellowstone from 1983 to 1987, and the number of known eyries in the park increased from 1 in 1984 to 13 in 1998. Peregrine falcons reside in Yellowstone from April through October and migrate to Central or South America in winter. In July 1999, the Secretary of the Interior announced that the species recovered sufficiently to permit removal from the endangered species list. Monitoring and protection of nest sites will continue, as these birds will always merit special attention for their majesty and as an indicator of environmental quality.

Bald eagles. A Bald Eagle Working Group, formed in 1982 to coordinate efforts among the eight federal and state agencies in greater Yellowstone, has monitored the eagle population, assessed habitat conditions, and implemented conservation measures. Despite some isolated problems in the Great Lakes and the Southwest, the U.S. Fish and Wildlife Service downlisted the bald eagle from endangered to threatened in 1995 because of significant gains in places like greater Yellowstone, where the birds are now thriving. The number of active nests almost tripled between 1982 and 1998, when 21 of the ecosystem's 91 bald eagle pairs nested in the park.



Trumpeter swans. Early in this century, habitat destruction and commercial hunting led to the near extinction of North America's largest wild fowl in the lower 48 states. Protected areas have been essential to the trumpeter swan's survival; Red Rocks Lakes National Wildlife Refuge in Montana was specifically established for this purpose. Yet the greater Yellowstone population has declined in recent years. The summer nesting population in the park, which numbered 45 swans at times during the 1980s, rarely exceeds 25 now. The winter population, boosted by migrant birds from elsewhere in greater Yellowstone and from Canada, has varied from 60 to several hundred swans.

Human activities have sometimes affected swan reproduction, although signs are posted and patrol rangers enforce regulations that prohibit people from approaching within 25 yards. The highly visible trumpeter pairs attract visitors who may create a disturbance, often taking photos and sometimes offering food. When swans become habituated to people, they lose their fear of predators and are more likely to die from predation. In certain areas, biologists have attempted to improve trumpeter swan nesting success by providing floating platforms.

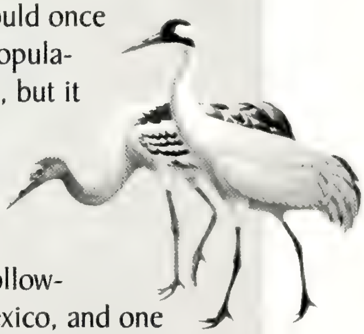
Through private donations, Yellowstone established a Trumpeter Swan Recovery Fund in 1989. This program has replaced exotic mute swans, which may be detrimental to trumpeter recovery, with captive-raised trumpeter swans on cooperating ranches north of the park. These cross-boundary efforts have resulted in growing public support for swan conservation and nesting sites on lands outside the park. The park ornithologist also participates in a trumpeter swan working group to coordinate recovery efforts across the entire greater Yellowstone.

Colonial nesting birds. The Molly Islands in the southeast arm of Yellowstone Lake provide an important nesting area for colonial bird colonies. On Rocky Island and Sandy Island, American white pelicans, double-breasted cormorants, Caspian terns, and California gulls are censused four times a year from May through October. Boat surveys and aerial photography are used to monitor nest attempts, egg production, hatching, and fledging. To protect the nesting birds, park regulations prohibit visitors from approaching within 1/4 mile of the islands.

Neotropical migrants. More than 100 of the bird species that can be found in Yellowstone during the summer, including the osprey and the peregrine falcon, spend the winter in Mexico and Central America where they are threatened by loss of habitat, pesticide use, hunting, and an increase in human development. Yellowstone is an active participant in the Western Working Group of Partners in Flight, an international effort to protect migrant landbirds in the Americas. The park has also provided technical assistance to Latin American ornithologists and established partnerships with the Sierra Manatlan and the Mariposa Monarca biosphere reserves, two important wintering areas for neotropical migrant landbirds. Similar cooperative efforts to monitor and manage bird populations are needed within the United States, as some species that summer in Yellowstone may winter along the Pacific or Gulf coasts.

THE WHOOPING CRANE: HERE TODAY, GONE TOMORROW?

Although historically rare in Yellowstone, the whooping crane could once be seen from the Arctic coast to central Mexico. Today only three wild populations remain in North America and one of them is in greater Yellowstone, but it could easily vanish. At the end of 1998, a total of 364 whooping cranes were recorded on the continent, but that included 104 birds in captivity; 4 of the wild birds were in greater Yellowstone. In May of 1998, as part of an experiment to train the birds to migrate by imprinting on an ultralight aircraft, two whooping cranes were released in the park. The following September the whoopers flew south to wintering grounds in New Mexico, and one returned to Yellowstone in the spring of 1999. However, the national effort to recover whooping cranes was focussed on other projects in the midwest and Florida.



Program Needs

- INVENTORY AND MONITORING. It is crucial to obtain long-term funding to inventory a broad spectrum of bird habitats, complete nesting and production surveys, and carry out cooperative recovery efforts aimed at trumpeter swans and other rare birds, especially those that winter in insecure habitat outside Yellowstone.

- EDUCATION. As birding grows in popularity as a recreational pastime, the park hopes to increase its interpretive and research programs, add bird specimens to the park collection, and computerize bird records. Also needed are additional references, such as an annotated checklist of the birds of Yellowstone, and audio and video tapes on rare birds and on conserving neotropical migrants and their habitats.

- PARTNERSHIPS. Cooperative partnerships for birds must be expanded to provide greater protection for bird habitat and populations, especially those that migrate across park and national boundaries.

BIRDS

STEWARDSHIP GOALS

Working together with neighbors and partners, Yellowstone preserves and protects bird populations and their habitat, and recovers species that are rare or endangered.

Visitors' enjoyment of park birdlife is enhanced through educational programs, exhibits, and viewing opportunities in a natural setting.

Professionally trained staff inventory and monitor the full spectrum of bird populations and habitats on a cyclic basis, and oversee necessary research.

Through partnerships with states, other management agencies, and international cooperators, Yellowstone's migratory and neotropical bird species and their habitats are protected.

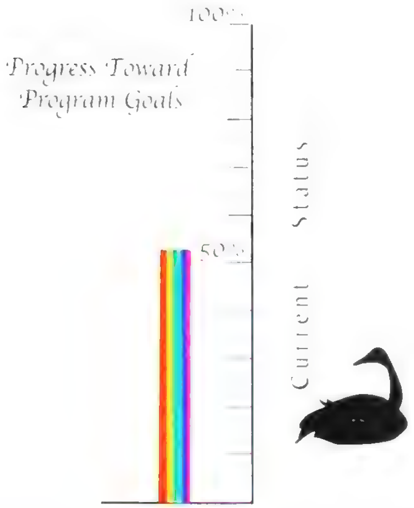
CURRENT STATE OF RESOURCES/PROGRAMS

Peregrine falcons and bald eagles are recovering and several other rare species have growing populations, but whooping cranes and trumpeter swans are declining in Greater Yellowstone.

Extensive undisturbed habitat exists for bird-watching, but interpretation and educational efforts related to migrant and resident bird species are limited.

One staff ornithologist monitors birds and their habitat; additional studies are sometimes conducted by visiting researchers.

Growing concern exists about birds that migrate from greater Yellowstone to Latin America; more research and cooperation are needed to maintain these species and their habitats in the face of numerous threats in summering and wintering grounds and along their flyways.



1998 FUNDING AND STAFF

Recurring Funds	
[illegible]	$ 57,500
[illegible]	
Non-Recurring Funds	
[illegible]	$ 13,800
Staff	0.8 FTE

The human resources and funding necessary to professionally and effectively manage [illegible]

Bison

Bison, commonly known as buffalo and weighing up to a ton, are the largest land mammals in North America. Millions of them once roamed from the Arctic to the Appalachians. By 1900, as a result of poaching and hunting for their hides and meat, Yellowstone had the only wild herd left in the U.S.; army soldiers counted only 23 in the park in 1902. The near extinction of this American icon was directly responsible for the congressional act of 1894 that prohibited hunting in national parks.

After Yellowstone's bison population increased through intensive management, occasional culling had limited their number to about 500 by 1967. But then park management shifted toward allowing natural processes to regulate population numbers for all wildlife species to the extent possible. As the bison population grew, more animals could be seen wintering in geothermal areas and at lower elevation ranges both in and outside the park. Although some people have regarded the increasing number of bison outside the park as evidence of food shortages caused by overgrazing, and others believe that the bison were simply taking advantage of roads the park had begun grooming for snowmachine use; it is a natural tendency for wildlife to seek easy access to food. While the effect of road grooming on bison is still under study, research has shown that bison and elk grazing are complementary, with the two grazers selecting different plants and plant parts. Like Yellowstone's elk, bison numbers are primarily controlled by the severity of the winter; only the strong survive. Unlike Yellowstone's elk, however, bison cannot be hunted by sportsmen outside the park, yet their population size has been affected by legal killing there.

Domestic Problems

Because some bison carry brucellosis, a disease that also infects domestic livestock, for nearly 30 years bison entering Montana from the park have been captured and shipped to slaughter or shot, even on national forest land. When the heavy snow and ice of the winter of 1996-1997 drove an unusually large number of bison from the park, nearly 1,100 were captured in or near park boundaries and sent to slaughter in Montana or killed by state and federal officers. This reduction, combined with an estimated natural winter mortality of 300 to 400 animals, brought the Yellowstone bison population down to about 2,000 in the spring of 1997, and many visitors complained of seeing fewer bison.

For more than 60 years, the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) has sought to eliminate brucellosis in domestic cattle across the United States. Although there is no documented case of Yellowstone bison transmitting brucellosis to humans or domestic cattle, some bison that leave the park have tested positive for exposure to the disease, and livestock interests regard them as a threat to

Montana's "brucellosis-free" status. Montana has objected that other states may impose testing requirements on Montana cattle, which could increase costs for livestock producers who want to ship their breeding stock out of the state.

Bison that wander outside Yellowstone are also unwelcome in many places because they can damage fences, gore horses, and pose traffic and other human safety hazards. Because of these concerns, Yellowstone has been party to "boundary control agreements" intended to keep bison from entering most areas outside the park at certain times of year.

In 1926, recognizing that the park lacked sufficient winter range for wild ungulates, Congress authorized the Secretaries of the Interior and Agriculture to buy more wildlife habitat from willing sellers. Efforts to acquire winter range and provide more separation for bison and cattle continue.

WHAT IS BRUCELLOSIS?

Brucellosis is a disease caused by the bacterium *Brucella abortus*, that afflicts both domestic livestock and wild animals such as elk and bison. Exposure is primarily through contact with infected birthing tissue or fluids. Although carriers do not die from the disease, it can cause an exposed pregnant cow to miscarry her first calf. With milk pasteurization required by law, there's virtually no risk of people catching the human version of the disease, called "undulant fever," unless they come into direct contact with the infected fluids of a contagious bison female or fetus. In humans, the disease can be treated with antibiotics.

Brucellosis was probably introduced to North American wildlife by livestock brought from Europe. Elk, which are far more numerous than bison, can also carry brucellosis, but it is bison that have been the focus of concern as possible transmitters of the disease to domestic livestock. Studies have shown that about half of Yellowstone's bison have been exposed to the bacteria, but the available evidence suggests that as few as 12 percent of the animals actually carry it. Brucellosis has not had any apparent effect on the health of the bison population.

There is no known cure for brucellosis in livestock. The strain 19 vaccine that has been used for several decades is believed to be about 65 to 75 percent effective in preventing brucellosis in livestock, depending on the age and sex of the animal. However, this vaccine appears to provide bison little protection against the disease and causes miscarriages in bison.

WHERE THE BUFFALO ROAM

Bison are extremely popular with the public and, like other park wildlife, roam across the unfenced boundaries of Yellowstone. In recent years, the park has spent considerable effort developing information and discussing alternatives for bison management with other agencies and park neighbors. Three biologists work full-time on bison and other ungulates (see "Elk and Other Ungulates," page 3–21).

Research. The NPS and other Department of the Interior agencies are committed to research that will increase our knowledge about bison ecology, the brucellosis organism in wildlife, and its possible risk of transmission to livestock. Much of this research was newly funded beginning in 1996. Effective control of the disease in wild animal populations will not be possible unless an effective vaccine is developed. The park is working with several agencies to evaluate the safety and efficacy of potential vaccines for bison, but research and development of such tools are costly and take time.

DETECTING *BRUCELLA* FROM BLOOD DNA

A group of molecular biologists is investigating a diagnostic test that may be able to detect the bacterium *Brucella abortus* using the polymerase chain reaction (PCR) technique. Much of the equipment, reagents, and technical skills needed for the project have been generously provided or loaned by the cooperators. Since December 1996, they have collected hundreds of samples of bison blood for DNA analysis, looked. at 19 strains of *Brucella* species' DNA using gene-sequencing technology, and begun to compare *B. abortus* from wild bison and domestic cattle to determine the genetic diversity of each. The results of this research may help answer questions about the pathogenicity of brucellosis and the risk of transmission between wild bison and domestic cattle—issues that could affect the long-term management of bison in and around the park.

Coincidentally, the PCR process relies upon an enzyme from a microorganism, *Thermus aquaticus,* that was discovered in a Yellowstone hot spring in 1967 as part of other research.

A long-range plan. Suggestions that Yellowstone become like other bison refuges, with fences and periodic culling, have been resisted by park managers, who are obligated to maintain the integrity of this wild, free-ranging herd. A multi-agency effort to produce a long-term bison management plan, underway since 1990, has been delayed by controversy and litigation. A draft Environmental Impact Statement was finally released for public comment in June 1998. Following a lengthy review period, a final action should be determined by 2000. Alternatives range from capturing all bison in Yellowstone and slaughtering all that test positive for brucellosis, to the use of public hunting to control bison numbers and distribution, to establishing tolerance zones for bison that wander outside park boundaries and acquiring more winter range.

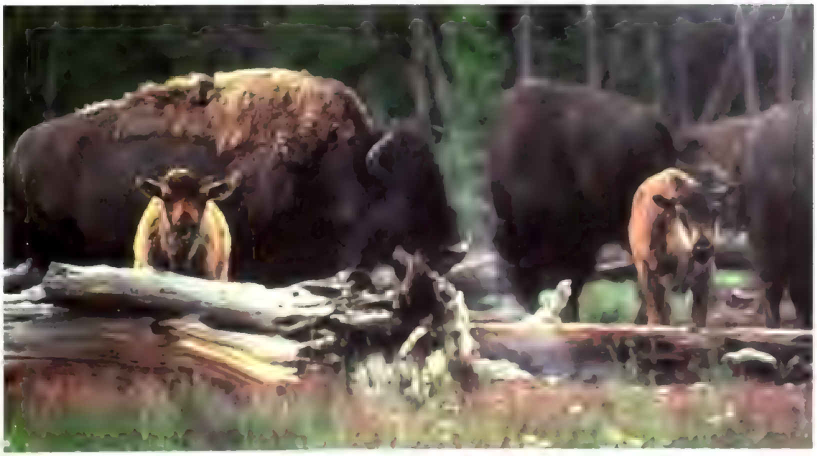
Education. An exhibit that explores the natural history and public controversy about bison opened at the Canyon Visitor Center in August 1997 (see page 6-9). A cooperative project between Yellowstone National Park and the Buffalo Bill Historical Center in Cody, Wyoming, "Where the Buffalo Roam" was immediately popular; after it opened, attendance at the visitor center rose from about 2,500 to more than 5,000 people a day. Outside the park, various organizations have sponsored educational forums and advertisements to promote their preferred option for management of the Yellowstone bison herd.

Program Needs

- MANAGEMENT. Personnel and equipment are needed to carry out bison management actions such as hazing and capturing the animals as they attempt to leave the park or other federal lands.

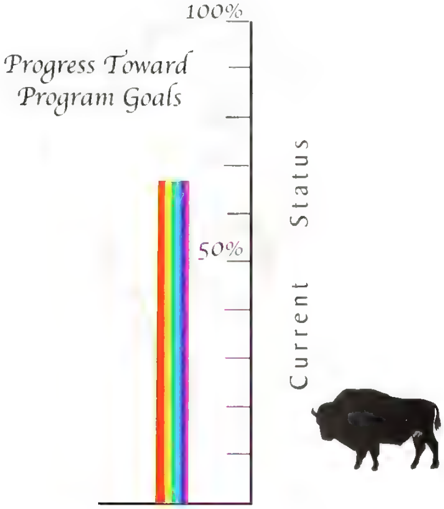
- MONITORING. Park staff need to conduct more frequent ground and aerial monitoring to track bison herd numbers and movements.

- RESEARCH. Scientists must continue to pursue better diagnostic techniques and the development of effective vaccines and vaccine delivery methods. More research is also needed on the genetic variability and ecology of bison and their relationship to other plant and animal species in the ecosystem.



BISON

STEWARDSHIP GOALS	CURRENT STATE OF RESOURCES/PROGRAMS
Yellowstone maintains a wild population of native bison with ecological and genetic integrity whose population and distribution are determined, to the greatest extent possible, by ecological processes.	The park is home to a viable, free-ranging population of ≥ 2,000 bison, controlled primarily by the toll of winter, but the unfenced and growing herd conflicts with long-standing federal and state efforts to eradicate the brucellosis disease from domestic livestock.
Professional staff manage bison based on sound science and work cooperatively with the surrounding states to manage the risk of disease transmission to cattle.	Staff wildlife biologists and rangers join in efforts to manage bison conflicts beyond park boundaries, but major controversy pervades the public and scientific debates about bison, brucellosis, and livestock management.
Staff monitor the bison population, distribution, and behavior, and facilitate necessary research on the animals' ecology and interactions with other species, including humans.	Staff biologists monitor bison movements and, with outside researchers, participate in studies of bison ecology and disease transmission and control.
Visitors enjoy opportunities to safely observe wild bison and learn about their natural history and ecology.	Millions of people enjoy seeing wild bison and learning about their important role in the Yellowstone food chain; but their strength and speed surprise some visitors who are injured by approaching too closely.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 130,000
Non-Recurring Funds	
One-time Projects	$ 156,700
Fee Demonstration Projects	$ 50,000
Staff	3.3 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Elk and Other Ungulates

Yellowstone National Park's high plateaus provide summer grazing for about 35,000 elk and much smaller numbers of deer, bison, pronghorn antelope, bighorn sheep, and moose. The largest of the seven primary elk herds, Yellowstone's northern herd, has generally numbered 15,000 to 22,000 over the past decade. One-third or more of its winter range is on public and private lands north of the park, and up to half of these elk and many of the other grazing animals migrate to lower areas in or outside the park during the winter, depending on the depth of snow and winter severity.

For decades many people have believed that the park had more elk than the range could reasonably sustain. Elk, along with bison and pronghorn, were blamed for overgrazing the grasses and shrublands as well as for increased erosion and declines in willows, aspen, and beaver. As a result, thousands of Yellowstone's ungulates were shipped to other ranges or simply shot. Despite prevailing scientific opinion at the time that mass reduction of elk was "necessary," public outcry resulted in these efforts being halted in 1967. Since the 1960s, wildlife managers in largely intact parks such as Yellowstone's have sought to accommodate, insofar as practical, each species' propensity to "naturally" regulate its population size. When natural regulation is permitted to take place, wildlife populations fluctuate over time as birth and death rates are affected by a combination of factors, including winter severity, the quantity and quality of available forage, emigration, hunting, and predation by other animals. Except for bison, wild ungulates may be hunted during state-regulated seasons when they leave the park.

But natural regulation has remained controversial. In 1986, continuing concern over the condition of the northern range in both the scientific community and the general public prompted Congress to mandate more studies. This research initiative, one of the largest in the history of the NPS, encompassed more than 40 projects by NPS biologists, university researchers, and scientists from other federal and state agencies. The key findings from these research projects have been published in two books: the peer-reviewed technical report, *Effects of Grazing by Wild Ungulates in Yellowstone National Park* (1996); and *Yellowstone's Northern Range: Complexity and Change in a Wildland Ecosystem* (1997). Traditional interpretations of the range as overgrazed were based on commercial rangeland standards that are not appropriate for the park. Although experts will continue to disagree on some points, overall the studies demonstrate that the northern range has continued to provide a robust source of nutrition for large, healthy ungulate herds year after year. Despite certain localized effects, elk do not appear to have had any significant adverse effect on the overall diversity of native animals and plants.

While there is much more to be learned about how the ecosystem functions, the continuing controversy over the park's natural regulation policy is steeped in different human value systems. Some people, uncomfortable with the inherent variability of natural systems, prefer to manage for consistency. Others regard a largely uninhabited natural system as a rich opportunity for us to learn from and enjoy. In 1997, the General Accounting Office, which had completed a detailed review of northern range research and management, acknowleged that there was indeed scientific debate underway, but did not fault park managers for adhering to a natural regulation policy. In 1998, Congress called for the National Academy of Sciences to review management of the northern range, and the two-year study began in January of 1999.

Interagency cooperation. Yellowstone cooperates with the Gallatin National Forest and the Montana Department of Fish, Wildlife and Parks in a Northern Yellowstone Wildlife Working Group. This group discusses wildlife management and research related to the northern range and shares the cost of annual monitoring flights to count ungulate herds and classify them by sex and age—information used to plan hunting seasons outside the park and to assess the relationship between grazing animals, their habitat, and predator populations. The agencies have also worked in partnership with groups such as the Rocky Mountain Elk Foundation to secure additional winter range for these herds outside the park. Cooperation has also made possible periodic surveys of the Gallatin and Jackson Hole elk herds that winter west and south of the park.

The park staff includes three biologists who work full-time on monitoring and management of ungulates, although bison currently take up most of their time. (See "Bison", page 3–16.)

AN ELK BY ANY OTHER NAME

Shawnee Indians call the animal "wapiti", which means white-rumped deer. Although the North American elk is the same species as the red deer of Europe, the first European settlers called them "elk," the word used for moose in Europe. Of the six sub-species that existed in North America when the Europeans arrived, only four remain today—the Manitoban, the Roosevelt, the Tule, and the Rocky Mountain elk—the last of which is found in Yellowstone. Today, greater Yellowstone is home to about 120,000 elk.

While grass is their favored food at any time of year, elk can survive on a wider range of plant types in the Yellowstone ecosystem than can other wild ungulates (hooved animals) and consequently are much more numerous. Although their strength, stamina, and speed help protect elk from predators, they are an important food source for wolves, grizzly bears, mountain lions, and coyotes, as well as scavengers such as foxes, eagles, and carcass beetles. But the severity of winter weather is the major controlling influence on elk populations.

How Grazing Affects Wildlands

Scientific appraisals of range conditions measure criteria such as plant productivity. One research technique used on Yellowstone's northern range is to compare grazed grasslands to areas inside plots called exclosures, which are fenced to prevent grazing. Although plants on ungrazed plots are taller, grazing does not reduce the seasonal protein content or total volume of grass, or the seedling establishment or annual growth of big sagebrush on the northern range, except in drought years. This is because elk move across the landscape as foraging conditions change, seldom grazing forbs and grasses during their most vulnerable period, and moving to higher elevations before the plants flower and seed. Furthermore, the fenced areas provide an extreme comparison, since the absence of all grazing is an artificial and undesirable condition when the goal is to preserve natural processes.

Wild ungulates enhance the cycling of nutrients by tilling the soil with their hooves and speeding up the decomposition process, converting plant matter to feces and urine that are cycled back into the system along with the animals' carcasses. Nutrient cycling has been found to occur at a higher rate on heavily grazed sites, stimulating production of the elk's preferred food plants. Many scientists value Yellowstone as a comparison to other more controlled landscapes around the world.

Elk numbers. Yellowstone's experience, since elk culling came to an end in 1968, has shown that natural regulation combined with regulated hunting in the surrounding national forests appears to be limiting the size of the elk population. Researchers have found that as the northern Yellowstone elk population increases, the cows carry less fat and produce fewer calves, and the calves weigh less at birth and are therefore less likely to survive. Elk numbers have increased during years with mild winters and wet summers and declined after the drought, fires, and severe winter of 1988. Since 1990, population estimates of the northern herd have ranged between 11,000 and 19,000. The park's other resident herd, which lives year-round in the Madison, Firehole, and Gibbon river valleys, numbers 600 to 800 animals.

Elk and their environment. Most studies suggest that elk in Yellowstone have not been detrimental to their associated grassland habitats. But the riparian zones and sparsely seen willows and aspens of northern Yellowstone show visible effects of heavy grazing pressure. Historic photos and tree-ring studies indicate that some northern range locations were once able to produce larger stands and greater numbers of willows and aspen than is now the case. However, it is possible that the aspen and willows of the late nineteenth century were able to grow to tree height because of some combination of climate, fire, commercial beaver trapping, and possibly elk reduction through hunting. Pollen studies going back many thousands of years tend to support the view that the conditions necessary for aspen to grow to tree-size rarely occur in Yellowstone. No significant decline in northern range willows has occurred since 1959, despite a quadrupling of elk numbers there. Aspen, willows, beaver, and moose are also more abundant in the riparian zones of the southern and northwestern parts of the park, offering the opportunity for comparative studies with the northern range.

Another long-standing concern has been that ungulate grazing causes increased erosion. A team of researchers from government agencies and Trout Unlimited mapped erosion in the upper Yellowstone River drainage and found that most of the sediment transported in park rivers comes from four steep and geologically unstable areas. Sediments in rivers throughout the park are within the normal range observed in other western streams, and the Lamar Valley remains a blue-ribbon trout fishery, comparing favorably with that of other sport fisheries that have no wildlife herds grazing nearby.

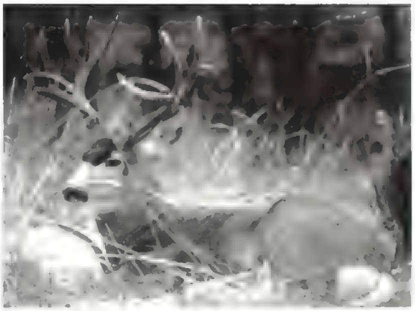
Bighorn sheep. Early accounts that reported large numbers of bighorn sheep in the Yellowstone area have led to the speculation that they were more numerous before the park was established. Possible reasons for the decline include over-hunting, the introduction of domestic livestock diseases, and the difficulty that bighorn sheep have in recolonizing ranges from which they have been extirpated. The northern range population has not completely recovered from a *Chlamydia* epidemic that broke out in the winter of 1981-1982, which is believed to have resulted in the loss of about 60 percent of a herd estimated to number 500. Concerns about the herd have prompted visitor use restrictions in the Gardner Canyon between Mammoth Hot Springs and the park's north entrance, where bighorns are observed throughout the year. With funding provided by the Federal Lands Highway Program, researchers from Montana State University initiated a study on bighorn sheep habitat use in the park and how it is affected by human activity along the Gardiner to Mammoth and Dunraven Pass road corridors.

The Northern Yellowstone Wildlife Working Group conducts an annual ground count on the northern range and in recent years began funding an aerial bighorn count in the spring. In the past five years, counts of bighorn sheep on the northern range have varied from about 150 to 225 animals. Other bands of sheep summer in the high country of the Absaroka Range, along the park's north and east boundaries, and in the Red Mountains in southern Yellowstone.

White-tailed deer. Although occasionally seen in various parts of the park, white-tailed deer favor lower elevations and their numbers have never been high.

Moose. As solitary animals that spend much of their time in forested areas, Yellowstone's moose are very difficult to count, but the northern range population appears to have decreased since the 1960s, and especially since the fires of 1988 burned their winter spruce-fir habitats. Although the possibility of competitive exclusion by elk has not been ruled out, the loss of old growth forests and mortality from hunting outside the park may also be factors. Moose are often seen in riparian areas around Yellowstone Lake and along the Madison, Gallatin, Snake, upper Yellowstone, and Bechler rivers, but no regular surveys have been made in these areas; the only studies of moose have been in northeastern Yellowstone and the forests to the north.

Mule deer. While a few of Yellowstone's mule deer winter in the park's thermal basins, most migrate outside the park to lower elevations in winter. New research indicates that deer summer throughout greater Yellowstone, returning to a small area around Mammoth Hot Springs and Gardiner, Montana, during the severe snow season. Aerial surveys conducted on the northern range herd since 1985 indicate that this mule deer herd numbers between about 1,600 and 2,500 animals, despite a regular fall hunting season and significant numbers of road-killed deer outside the park.



Pronghorn antelope. Once abundant in the major river valleys that radiate from the park, pronghorn were heavily reduced by settlement and hunting in the nineteenth century. They were also culled along with elk and bison because of overgrazing concerns. By 1967 fewer than 200 pronghorn were counted. The only surviving herd in the park summers mostly in the Lamar Valley, but moves to lower elevations inside and outside the park in winter. The herd grew to 594 in 1991 but has since declined to less than 250 animals; predation by coyotes and other carnivores, inbreeding depression, and loss of winter range have been suggested as possible reasons. Research was initiated in 1998 on this small population, which contains more genetic diversity than any other North American herd studied. Biologists believe that if the herd drops below 200 animals, it will be in jeopardy of extinction.

Mountain goats. Although absent from the park for millenia, mountain goats were deliberately introduced around the park in the 1940s and 1950s. Since then, they have colonized adjacent drainages in the park, and bands of up to several dozen goats have become established in the northeastern and northwestern corners of the park. In areas where they are not native, mountain goats may damage native plants found nowhere else on the continent. The possible impact of goat colonization on Yellowstone's flora is unknown, and there is concern over the potential competition between goats and native bighorn sheep. The park hopes to convene a panel of outside experts to recommend management alternatives for dealing with the goats.

Program Needs

- Secure additional winter range. Yellowstone must continue to support the efforts of states and private groups to secure additional winter habitat in the face of ongoing land development. Riverine bottomlands are especially valuable to both wildlife and people, who want them for agricultural, recreational, and residential use.

- Research and monitoring. Despite the long history of elk research and management in the park, there is no ongoing funding to support surveys of elk, mule deer, moose, pronghorn, and bighorn sheep and their associated habitats on and beyond the northern range. Additional research is needed to improve our knowledge of pronghorn, bighorn sheep, and moose populations, and to study the effects of mountain goats on native plant and animal populations and determine appropriate management actions. More research is needed on interactions between elk, moose, beaver, and woody vegetation—aspens, willows, cottonwoods, sagebrush, and junipers—on the northern range and in other areas of the park.

ELK AND OTHER UNGULATES

STEWARDSHIP GOALS

Yellowstone provides habitat for wild populations of native elk and other ungulates, allowing herds to fluctuate in response to natural ecological processes with minimal influence. Visitors have opportunities to observe and learn about ungulate ecology.

The park identifies, protects, and if necessary restores populations, especially those of rare or endangered wildlife. Professionally trained staff monitor the full spectrum of ungulates and related species and oversee needed research.

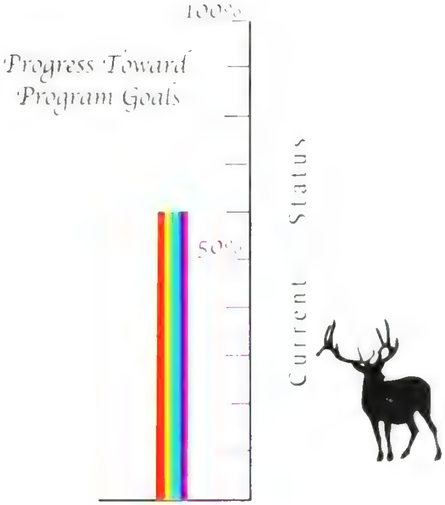
Staff work cooperatively with neighboring agencies and partners to manage non-native species' influence on native ungulates and their habitat, and to prevent ungulate conflicts with humans.

CURRENT STATE OF RESOURCES/PROGRAMS

One of North America's largest elk herds and other ungulates provide outstanding viewing opportunities for visitors. Controversy over the elk's influence on range condition, riparian species, and biodiversity recurs among interested citizens and scientists and requires more research.

In addition to elk, staff wildlife biologists monitor moose, pronghorn, deer, and bighorn sheep, species which persist but receive relatively little research and management attention; long-term viability of pronghorn is a special concern.

Partnerships with the states, other federal agencies, and groups such as the Rocky Mountain Elk Foundation have led to improved databases and habitat outside the park. Non-native plant invaders and mountain goats pose an unknown level of threat to native species.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 38,000
Cost Recovery/Special Use Fees	
Non Recurring Funds	
One-time Projects	
Staff	0.5 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship goals are identified in the park business plan.

Fish and Other Aquatic Resources

A key part of the Yellowstone ecosystem is the 12 species of native fish and many other aquatic plants and animals found in the park's rivers and lakes. For example, the Yellowstone cutthroat trout provides food for at least 42 species of animals, including bald eagles, white pelicans, ospreys, loons, otters, and bears.

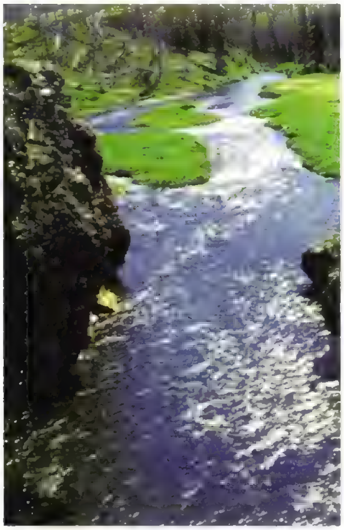
As a result of the park's location atop a volcanic plateau, where waterfalls and cataracts deterred upstream migration, many waters were without fish when it was established. Because it was originally thought that Yellowstone should accommodate the growing popularity of sport-fishing, for decades park waters were stocked with both native and non-native fish. However, biologists now recognize many problems created by stocking non-native species. This interference changed the ecology of many Yellowstone waters, especially as non-native fish displaced or interbred with native species, diluting their genetic makeup. Fish stocking also affected the quality of the fishing experience, because the abundance of fish attracted so many anglers that, even with continual restocking, the annual trout harvest could not be sustained. The Yellowstone cutthroat trout is easy for anglers to catch, a fact that nearly led to its demise. By the 1960s, Yellowstone's fish populations were in poor condition and the angling experience had declined, prompting a major change in fisheries management.

Although angling remains an exception to the "take nothing but photographs" rule that generally applies in national parks, by the late 1980s Yellowstone's native trout had recovered under angling restrictions that still provide opportunities for visitors to catch wild fish in a natural setting, but discourage the killing of fish. Despite changes that have taken place in the composition and distribution of aquatic species, park policies have prevented or reduced the kind of habitat degradation that has occurred elsewhere from water pollution, dam construction, mineral extraction, silting from deforestation, major water diversion for irrigation, and livestock grazing.

As a result, Yellowstone has one of the most significant near-pristine aquatic systems in the United States. Nonetheless, the fluvial Arctic grayling, the upper Missouri morph of westslope cutthroat and the Snake River finespotted cutthroat have nearly become extinct, and the illegal introduction of non-native lake trout into Yellowstone Lake created a new threat to the Yellowstone cutthroat trout. Total ecosystem restoration would mean that waters like Lewis and Shoshone lakes would be returned to their fishless state, but there is no feasible way to extirpate non-native fish without seriously damaging native resources. Although many Yellowstone waters were consistently stocked throughout the first half of this century, they now contain valuable gene pools of both native and introduced species. In recent cooperative programs with Wyoming and Montana, cutthroat brood stock were collected to restore the species to lakes and streams outside the park.

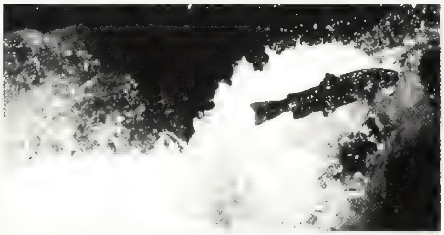
Whirling disease, which has been linked to an apparent decline in rainbow trout in nearby Montana waters, was found in Yellowstone Lake cutthroat trout in late 1998, posing yet another threat to an already imperiled population. The uninvited and rapidly proliferating New Zealand mud snail, recently found in the Firehole, Madison, and Gardner Rivers, may directly affect aquatic invertebrates, thus disturbing fish populations and the natural functioning of the ecosystem. Biologists remain alert for other non-native aquatic invaders such as zebra mussels that are present outside the park.

For many years, management of the park's fisheries was based on research and monitoring done by a resident unit of the U.S. Fish and Wildlife Service (USFWS) that contributed $188,000 and up to five biologists to the park's program as recently as 1993. Since a shift in USFWS priorities led them to close the Yellowstone office in 1996, taking their staff and funding elsewhere, fisheries work has had to be handled by two biologists hired by the park. During 1996 and 1997, a retired biologist served as a volunteer aquatic resources program leader; the position remained vacant throughout 1999.



Yellowstone Fishes

	Native Species	Introduced Species
Sport Fish	• Cutthroat trout (3 races): Yellowstone, westslope and Snake River finespotted • Arctic grayling • Mountain whitefish	• Brook trout • Brown trout • Lake trout • Rainbow trout
Other Fish	• Minnows: longnose dace, speckled dace, redside shiner, Utah chub, and redside shiner/speckled dace hybrid • Suckers: longnose, mountain, and Utah suckers • Mottled sculpin	• Lake chub



FISH WATCHING

Fishing has been prohibited from Fishing Bridge since 1973 to protect native cutthroat trout. Today people equipped only with cameras can be found at the bridge just *looking* at fish and other aquatic resources. After the crumbling ice sheets from Yellowstone Lake move into the river and grind along under the bridge in late spring, visitors can witness the primordial drama of the spawning run, as millions of trout eggs are laid in gravel within sight of the bridge. Longnose suckers also spawn in this area in June and July. A great concentration of wildlife occurs for almost two months, as the fish attract pelicans, gulls, and mergansers, as well as an occasional bald eagle, osprey, or bear. A 1994 study estimated that 67,000 observers at Fishing Bridge watched hundreds of trout feed and mate in the water below, and about 176,400 people stopped to see the cutthroat jump LeHardy Rapids downstream on the Yellowstone River.

PROGRAM SUCCESSES

Recovering fish populations. The restrictions on fishing gear and on the number and size of fish taken have helped restore native fish populations since the 1970s. Many streams are designated catch-and-release-only for certain species. A few waters have been closed to fishing in order to protect spawning runs or scenic views, or to allow waterfowl and other wildlife to use habitats undisturbed. The resurgence of trout has helped increase some bird and mammal populations that depend on it as a food source. While the angler landing rate has returned to high levels and the proportion of older and larger cutthroat trout in both angler catch and in spawning streams has increased, the number of cutthroat trout removed from Yellowstone Lake is less than one-tenth of what it was 30 years ago.

Recasting the fishing experience. Yellowstone offers some of the finest trout fishing in America, both for the expert with a fly rod and for parents with children on their first fishing trip. Catch-and-release fishing has made it possible for a great many people to catch wild trout, which is one of the most important factors in a satisfying fishing experience. Since catch-and-release fishing was established on the Yellowstone River between Yellowstone Lake and the Grand Canyon in 1973, the percentage of anglers who land at least one trout has almost doubled to 62 percent. Although Yellowstone Lake remains the most popular fishing spot, with about one-third of all angler days spent there, visitors who want to fish now distribute themselves more widely throughout the park. About 59,900 park visitors purchased fishing permits in 1998, and 10,377 children received free permits.

Fishing fees. In 1994, the park began charging $5 for a 7-day permit and $10 for a season pass. Although the fees were doubled in 1996, anglers have generally been supportive of the program, especially since the fees directly benefit the park's aquatic resources. During the first three years of the program, the $1.5 million generated by fishing fees has been used to provide better information and service to anglers through a larger number of better trained permit issuers, purchase of the first new patrol boat in more than 20 years, increased ranger patrols for enforcement of fishing regulations, and enhanced monitoring of fish populations. Even before fees were charged for angling, the permit system had become valuable in creating a fisheries database by including a form on which anglers are requested to record where they went fishing and what they caught.

Removing lake trout. Biologists have estimated that predation by lake trout could eventually reduce the Yellowstone Lake cutthroat population to 10 percent of current levels. Although lake trout eradication is not feasible, minimizing their impact is a necessary goal. As the first step toward long-term lake trout control, park staff experimented extensively to determine when and where to set gillnets in order to capture the maximum number of lake trout with a minimum by-catch of cutthroat trout.

In 1998, nearly 8,000 lake trout were captured in the lake, including spawners each capable of consuming up to 50 cutthroat trout per year. The total number of lake trout in Yellowstone Lake, probably in the tens of thousands, consumes an estimated 500,000 cutthroat trout per year. Even at the peak of consumptive fishing in the 1950s, anglers removed fewer than 400,000 cutthroats a year from Yellowstone Lake. Under the two-fish limit, about 21,000 cutthroats are now creeled by anglers each year.

Working with the Idaho Department of Fish and Game, Utah State University, and the Biological Resources Division of the U.S. Geological Survey, the park assessed the threat that lake trout pose by testing dual-beam hydroacoustic technology to estimate population sizes for both lake trout and cutthroat trout and to locate concentrations of fish in the lake. Radio telemetry has also been used to locate additional lake trout spawning areas, which were then targeted for control actions.

THE TROUBLE WITH LAKE TROUT

Lake trout, also known as mackinaw, are native to the Great Lakes region. They were deliberately introduced into several lakes early in the park's history, but not until 1994 was their illegal planting confirmed in Yellowstone Lake, long regarded as the most pristine subalpine lake in America. In many places lake trout provide trophy sport fishing. But in Yellowstone Lake they pose a major threat to the native cutthroat trout, which must compete with juvenile lake trout for the same insect and invertebrate food, and are eaten by adult lake trout. Nowhere do lake trout coexist naturally with cutthroat trout, and they have reduced or eliminated native trout in some places, including Heart Lake in Yellowstone and Jackson Lake in Grand Teton National Park. And because they spend most of the year in deep water, lake trout cannot replace the cutthroat trout in the food chain. Unfortunately, potential spawning habitat for lake trout in Yellowstone Lake is extensive.

Program Needs

Yellowstone has been widely acclaimed as a model of progressive fisheries management. To maintain this reputation and to continue to improve the park's role in preserving native fish and habitats, threats to the aquatic ecosystem must be addressed through increased research and management actions. Although the fisheries program has been augmented by donations to the Yellowstone Fisheries Fund from private individuals and from institutions such as Canon U.S.A., Inc., Trout Unlimited, and the Montana Trout Foundation, lack of funds resulted in a termination of stream and lake inventory and monitoring programs in the early 1990s.

- STRENGTHEN FISHERIES STAFF AND INFRASTRUCTURE. Funding efforts in recent years have been focussed on restoring staff and funds lost as a result of the USFWS departure and budget shortfalls, and securing equipment, including a fleet of boats and vehicles. Old buildings in the Lake Fish Hatchery Historic District that have been traditionally used by the fisheries project staff are on the verge of collapse. Significant restoration could make these facilities functional for fisheries management operations and return the buildings' historic value.

- INVENTORY AND MONITOR RESOURCES. Another primary need is to restore stream and lake inventory and monitoring programs, begun in the 1960s, that are critical for assessing the status of aquatic systems, evaluating the effectiveness of fishery regulations, and estimating the impacts of threats such as the mud snail and whirling disease on the native aquatic environment. Increased monitoring of cutthroat trout spawning runs will be needed to determine the effects of lake trout on the native Yellowstone cutthroat.

- SPECIES RESTORATION. Additional funding is needed to return westslope cutthroat trout and fluvial Arctic grayling to selected waters by removing or suppressing non-native fishes and by constructing barriers to prevent their re-entry. The feasibility of restoring Snake River finespotted cutthroat trout should also be determined.

- COMBAT EXOTIC SPECIES AND DISEASES. Additional professional staff could help assess and develop mitigation plans for ecologically disruptive exotic species such as the New Zealand mud snail and whirling disease, along with the introduced lake trout.

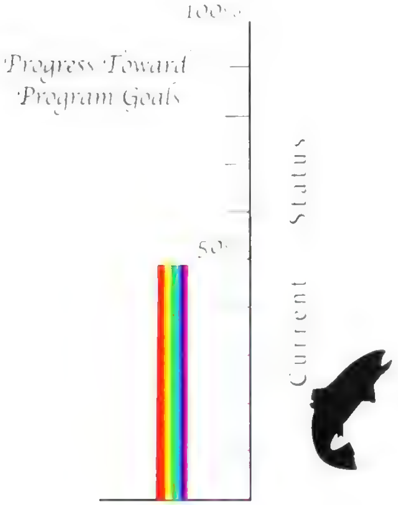
AQUATIC RESOURCES AND FISHERIES

STEWARDSHIP GOALS

- A full complement of aquatic resources biologists oversee programs to monitor and interpret fish populations and other aquatic components as functioning elements of the ecosystem.
- Staff manage fisheries using angler licenses, enforcement of fishing regulations, and visitor education.
- Native aquatic species and their habitats are preserved and, where necessary, restored; exotic species and their effects on native resources are carefully managed.
- Visitors enjoy opportunities to safely observe and fish for wild trout in natural settings.

CURRENT STATE OF RESOURCES/PROGRAMS

- A small staff carries out a well-established program of fish and water quality monitoring assisted by outside researchers. Additional positions may be filled when funds are available. Infrastructure and some equipment is in great need of repair.
- Rangers enforce regulations and interpret aquatic resources; revenue from anglers' fees helps offset the costs of the fisheries program.
- Lake trout loom as a major threat to the native Yellowstone cutthroat trout population and their predators; other native fishes also need help, and new non-natives (whirling disease, New Zealand mud snail) are invading.
- Sport anglers and wildlife watchers spend significant time and money in appreciation of Yellowstone fish.

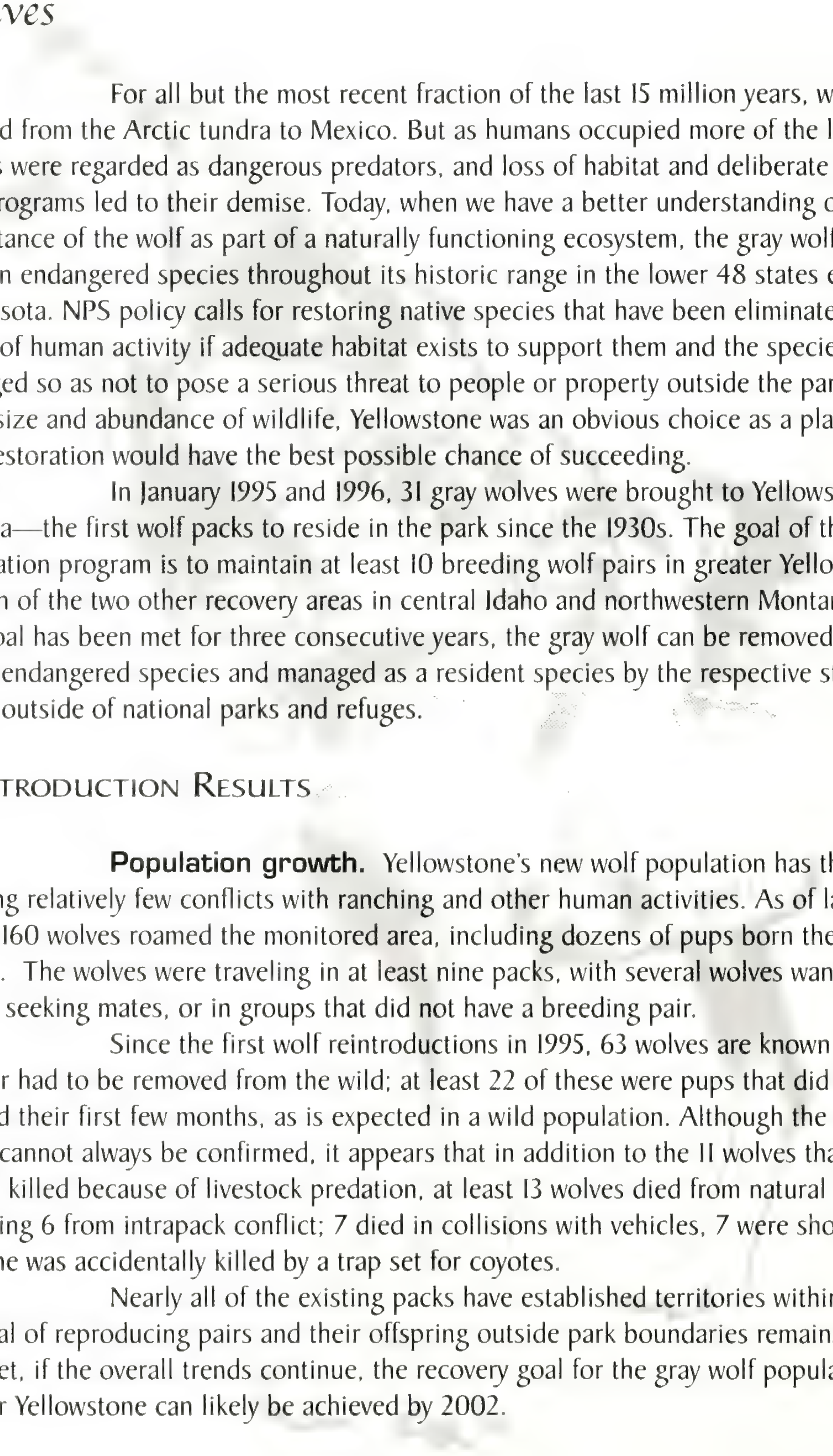


1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone ONPS Base Budget	$ 118,000
[illegible]	$ 342,800
Non Recurring Funds	
[illegible]	$ 20,500
Staff	5.7 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan

Wolves



For all but the most recent fraction of the last 15 million years, wolf packs roamed from the Arctic tundra to Mexico. But as humans occupied more of the landscape, wolves were regarded as dangerous predators, and loss of habitat and deliberate extermination programs led to their demise. Today, when we have a better understanding of the importance of the wolf as part of a naturally functioning ecosystem, the gray wolf is considered an endangered species throughout its historic range in the lower 48 states except Minnesota. NPS policy calls for restoring native species that have been eliminated as a result of human activity if adequate habitat exists to support them and the species can be managed so as not to pose a serious threat to people or property outside the park. Because of its size and abundance of wildlife, Yellowstone was an obvious choice as a place where wolf restoration would have the best possible chance of succeeding.

In January 1995 and 1996, 31 gray wolves were brought to Yellowstone from Canada—the first wolf packs to reside in the park since the 1930s. The goal of the wolf restoration program is to maintain at least 10 breeding wolf pairs in greater Yellowstone and in each of the two other recovery areas in central Idaho and northwestern Montana. When this goal has been met for three consecutive years, the gray wolf can be removed from the list of endangered species and managed as a resident species by the respective states when found outside of national parks and refuges.

Reintroduction Results

Population growth. Yellowstone's new wolf population has thrived, creating relatively few conflicts with ranching and other human activities. As of late 1999, about 160 wolves roamed the monitored area, including dozens of pups born the previous spring. The wolves were traveling in at least nine packs, with several wolves wandering alone, seeking mates, or in groups that did not have a breeding pair.

Since the first wolf reintroductions in 1995, 63 wolves are known to have died or had to be removed from the wild; at least 22 of these were pups that did not survive beyond their first few months, as is expected in a wild population. Although the cause of death cannot always be confirmed, it appears that in addition to the 11 wolves that were legally killed because of livestock predation, at least 13 wolves died from natural causes including 6 from intrapack conflict; 7 died in collisions with vehicles, 7 were shot illegally, and one was accidentally killed by a trap set for coyotes.

Nearly all of the existing packs have established territories within the park. Survival of reproducing pairs and their offspring outside park boundaries remains problematic. Yet, if the overall trends continue, the recovery goal for the gray wolf population in greater Yellowstone can likely be achieved by 2002.

MANAGING YELLOWSTONE'S WOLVES

The U.S. Fish and Wildlife Service, which bears the primary responsibility for ensuring compliance with the Endangered Species Act, oversees wolf restoration in the three recovery areas. In Yellowstone, two park wildlife biologists are dedicated full-time to the project, with one assistant and from two to six volunteers. To facilitate monitoring and research, all of the wolves brought from Canada were radio-collared before release, and it is anticipated that up to half of the wolves born here will continue to be radio-collared as they become large enough to be safely captured and handled. Wolf project staff conduct aerial telemetry surveys and ground tracking to monitor the wolves' movements.

Although killing or harassing an endangered species is ordinarily illegal except in defense of human life, the controversy surrounding wolf reintroduction led to special rules for managing them. Livestock owners are permitted to harass a wolf found on their property or near livestock on public rangeland, and they may kill a wolf caught preying on livestock on their own land. Wolves that prey on livestock that are legally grazing on public land may be relocated or killed. As with other species, sometimes individual animals must be sacrificed in order to reach the goal of saving the population.

Predation. Wolves survive by killing other animals and scavenging on animals that have died from other causes. Yellowstone's wolves have preyed primarily on elk, but have also taken some deer, bison, pronghorn, and moose. It was anticipated that as the wolves brought from Canada established their territories, some would leave the park and travel across or inhabit private land, and that some of the 412,000 livestock in greater Yellowstone would be preyed upon. Based on wolf predation in other areas, the Environmental Impact Statement for the reintroduction program predicted that the Yellowstone wolves would kill 20 to 28 sheep and cattle during the first two years. The reintroduced wolves took no domestic livestock in 1995, and preyed on 12 sheep in 1996; the one wolf responsible was killed.

During 1997, two wolves that had killed a total of one cow and three sheep were legally shot in separate incidents when caught preying on the livestock. Although an additional 65 sheep and 5 cattle were also preyed upon by wolves that year, just one female wolf was responsible for 56 of the sheep deaths near Pinedale, Wyoming; both she and the other four wolves involved in these predations were killed by federal agents.

In 1998, despite a growing wolf population, only three cattle and four sheep were lost to wolf predation; the three wolves responsible were killed.

To help lessen the negative consequences of a program they strongly support, Defenders of Wildlife has so far paid ranchers $18,162 to compensate for livestock that were killed by wolves in the reintroduction program.

Sightings by visitors. Although the wolves brought from Canada, where they can be hunted and trapped, were expected to remain largely out of sight in Yellowstone, they seemed to quickly adapt to life in a national park. From roadside pullouts in the Lamar Valley, thousands of visitors have been able to watch a wolf pack as close as half a mile away as the wolves play, rest and interact with other wildlife—and many other people have heard the wolves howling. From 1995 to 1997 a ranger-naturalist obtained donations to support his own position as a specialist in wolf interpretation, guiding thousands of interested wolf watchers on walks and helping them spot wolves from a safe and respectful distance.

In legal limbo. In December 1997, Judge William Downes, ruling in consolidated lawsuits filed by the the Wyoming Farm Bureau Federation, the National Audubon Society et al., and James and Cat Urbigkit found that the wolf reintroduction program in Yellowstone and central Idaho violated the intent of section 10(j) of the Endangered Species Act because of the lack of geographic separation between the fully protected wolves already present in Montana and the wolves in the reintroduction areas where special rules for wolf management apply. The judge wrote that he was "especially mindful of the concerted efforts of the Government and wolf recovery advocates to accommodate the interests of stockgrowers and others who may be adversely affected by the wolf recovery program," and reached his decision "with the utmost reluctance." He ordered the removal (and specifically *not* the killing) of the reintroduced wolves and their offspring from the Yellowstone and central Idaho experimental population areas, but immediately stayed his order pending an expected appeal. Canada has stated it will not take back the wolves, and their relocation to another wild ecosystem in North America is unlikely. In February 1998, the U.S. Department of Justice filed an appeal of Judge Downes' decision and the judge heard arguments in August of 1999; as of this writing, the fate of the reintroduced wolves and their offspring is in doubt.

Program Needs

- Donated funds and labor. The Yellowstone wolf restoration program would not have been possible without the efforts of many volunteers and donations from private individuals and institutions. The Yellowstone Park Foundation has been involved in several initiatives to benefit the wolf project and has raised more than $250,000 in private funds since 1995. The success of wolf restoration in Yellowstone will continue to depend on this kind of support.

- Monitoring. Yellowstone's wolves must continue to be closely monitored to learn about their effects on other ecosystem inhabitants, to respond to any problems that may arise, and to determine if the goal of a self-sustaining population of wolves has been reached. A plan has been developed to document wolf survival and mortality, population size, distribution and dispersal, and the effects of wolf predation on various wildlife species, but additional funding and staff are needed to carry it out.

- Education. Presentation of information about wolf recovery and ecology must continue as part of ongoing programs to present accurate information to the public.

WOLF RESTORATION

STEWARDSHIP GOALS

Together with neighbors and partners, Yellowstone participates in a broad effort to restore gray wolves to the ecosystem.

Professionally trained wildlife biologists maintain a sound program of scientific research and monitoring of wolves and their relationships with other species.

Yellowstone staff provide assistance with wolf management outside the park when requested.

Visitors' enjoyment of Yellowstone is enhanced through viewing opportunities and educational programs on wolf ecology that aid public understanding and appreciation of this endangered predator.

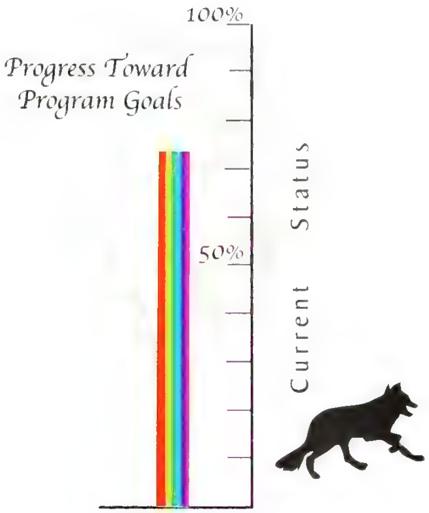
CURRENT STATE OF RESOURCES/PROGRAMS

As of 1999, more than 160 wolves live in greater Yellowstone, surviving mostly on elk and other native prey. Although well on their way to meeting the recovery goal, a legal order to remove the wolves was announced in December 1997 and their fate awaits an appeals court decision.

Park biologists and other researchers have established ongoing studies to track the wolves' behavior and their effect on other species.

Park staff assist in aerial tracking flights, wolf control actions when needed to deal with livestock predators, and relocation of nuisance wolves back into the park as requested by the U.S. Fish and Wildlife Service.

Biologists, public affairs staff, and interpreters provide printed information, talks, and interviews to meet the demand for news about the Yellowstone wolves. Many visitors have seen or heard wolves in the park without causing danger to themselves or the wolves.



1998 FUNDING AND STAFF

Recurring Funds Yellowstone N.P. Base Budget	$ 221,000
Non-Recurring Funds One-time Projects	$ 37,700
Staff	2.4 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Cultural Resources

The cultural history of what has come to be known as Yellowstone National Park begins with the first archeological evidence of American Indians present in the area more than 11,000 years ago. It extends through the first exploration by Euroamericans in the early nineteenth century; the establishment of the park and its administration by civilian employees (1872–1886), the military (1886–1918), and the National Park Service (1916 to present). The legacy of American Indian use, early park management, and the development of park concessions is preserved in the park's museum, library and archival collections, archeological sites and cultural landscapes, and in historic buildings that are still used today. Yellowstone plays a prominent role in the history of the park movement and illustrates the changes in how Americans have travelled and spent their leisure time.

Although the increased interest in cultural preservation at Yellowstone reflects a trend in the entire national park system, many of these resources have received relatively little attention because Yellowstone has been valued primarily as a "natural" park. Management of the park's cultural resources has been hampered by insufficient staff, funding, and facilities. For example, the absence of a full-time park archeologist to handle compliance with archeological protection requirements has delayed planning for road reconstruction and other development projects.

Since 1988, when Yellowstone had only one full-time employee devoted to cultural resources, the program has grown through additional staff and increased cooperation with park partners. Seasonal rangers, district resource management staff, and some maintenance employees spend at least part of their time working on cultural resources. A cultural resources coordinator on the park's concessions staff helps ensure compliance with laws that protecting the historic buildings and other facilities owned by the government and used by the park's concessioners.

Nonetheless, according to a 1997 servicewide analysis that was based on the extent of each park's cultural resources, Yellowstone still needs to significantly upgrade its cultural resources staff. Legislation passed in 1998 compels the park to inventory and document all of its cultural resources and develop systematic monitoring and protection programs for them. In some cases, the resources may be gone already. For example, archeological materials are eroding out of river banks and lake shores, and may be disappearing from the unsurveyed Bannock Trail and Nez Perce National Historic Trail. Also, people associated with the park and elders of surrounding American Indian tribes offer an ephemeral source of historical information. Unless park staff complete interviews with these people soon, the information may be lost forever.

Stewardship Responsibilities for Yellowstone's Cultural Resources

➟ **Research** enables us to identify cultural resources and determine their significance. A chipped stone found on a river bank may not appear important until research shows it was used as a fishing-net sinker by prehistoric people. Research can also enable us to prevent damage to cultural resources and develop ways to protect them.

➟ **Inventory and monitoring** ensures that we know the breadth and status of Yellowstone's cultural resources and what needs to be done to preserve them.

➟ **Preservation** helps ensure that cultural resources retain the qualities that make them significant and that future visitors may continue to enjoy these treasures. It is done through monitoring, maintenance, treatment, prevention of adverse impacts, and law enforcement.

➟ **Interpretation** tells the stories of how people have left their mark on Yellowstone in ways that promote understanding and appreciation among the visitors of today.

Archeology

The long presence of humans in Yellowstone prior to the park's establishment undoubtedly had some effects on its landscape, but our understanding of this history is limited. Only a very small portion of the park has been inventoried for archeological sites. Most of these archeological surveys have been done to comply with the National Historic Preservation Act in areas of high visitor impact or construction. Such areas may not accurately represent the range of archeological sites that may be found in the park. Most of the recorded sites are at or near the surface; little is known about buried sites or stratified sites with more than one cultural component.

Although more than 1,000 American Indian and Euroamerican archeological sites have been documented, many have not been revisited since their initial recording more than 30 years ago, and the current condition of most of them is poor or unknown. Only five percent of the recorded sites have been evaluated for National Register eligibility. Surveys done before 1980 need to be brought up to the Secretary of the Interior's "Standards and Guidelines for Archeology and Historic Preservation."

American Indian and Euroamerican archeological resources are integral to understanding the human experience in Yellowstone. However, the lack of adequate baseline data limits our ability to protect and learn from these resources. Through resource impacts, natural erosion, land use activities, and vandalism, sites are being damaged or destroyed.

AMERICAN INDIAN SITES

About 84 percent of the recorded archeological sites are of American Indian origin. In addition to their network of trails, the Indians left behind burial sites near Fishing Bridge, a bison kill along the shore of Yellowstone Lake, tiny campsites indicated by only a few obsidian chips, rock shelters, tipi rings, and wickiups—tipi-shaped shelters of wood, the remains of which can still be discerned in some backcountry sites. Few of these sites have been evaluated as to tribal or cultural affiliation. The archeological evidence suggests that most Indian use during the past 11,000 years occurred seasonally by a variety of groups, including the Crow, Shoshone, Bannock, Nez Perce, and Blackfeet.

EUROAMERICAN SITES

The Euroamerican presence in Yellowstone is relatively well documented through maps, written and photographic records, cultural objects, structures, and buildings. However, if something was not photographed, drawn, painted, written about, or discussed in an oral history, the archeological record becomes the primary record. Archeology provides a means to test the historic documentation and obtain previously unknown information about the Euroamerican presence in Yellowstone.

Many of the known sites date from the late 1800s to the mid-1940s and are associated with early park development under the U.S. Army and the NPS, as well as with the development of concessions within the park. Recorded sites include the Queen's Laundry bathhouse; Baronett's Bridge and cabin site; the Upper Lamar Cabin; historic rock carvings; the E.C. Waters shipwreck; Norris hotels and lunch station; Soda Butte, Tower, and Fountain Flats soldier stations; Yancey's Stage Stop; Wylie Camps; the Fountain, Firehole, and Marshall hotels; Sylvan Pass Lodge; and the Mary Mountain, Chittenden, and Mammoth to Gardiner high roads, and the Blacktail Deer Plateau Road, as well as 30 historic bridges, and 51 sites of dumps or historic debris piles, 14 cabins (including those of hunters, miners, fur trappers, and poachers), 29 borrow pits or gravel quarries, 11 road camps or buildings, 4 trails, 2 explosive bunkers, and 2 old bridges. The Stephens Creek game ranch, and Rife House ditches, Reese Creek diversion dam, and Ice Lake dock have also been recorded, and reports are now being completed for 40 backcountry patrol cabins; the Corkscrew Bridge, and Midway Geyser Basin bridge and walkway; and the Iron Springs Quarry. Known but unrecorded sites include the Norris Blockhouse (the park's first headquarters), Camp Sheridan, graves, and old hotel and dump sites.

RECENT PROGRESS

Archeologist on site. Having an archeologist from the NPS Rocky Mountain Support Office relocated to Yellowstone in October 1995 has made it possible to initiate archeological inventory and evaluation projects and to begin training park staff in cultural resource awareness, site identification, and how to prevent and detect resource violations. However, the archeologist's time is shared with other Rocky Mountain parks until the year 2000. About 20 park rangers have been trained in Archeological Resources and Protection Act (ARPA) procedures so they can help identify sites that require monitoring to prevent ARPA violations.

Historic Landmark designation. The Obsidian Cliff quarry site, a major source of obsidian that was used and traded across much of the West by Native Americans for thousands of years, was designated a National Historic Landmark by the Secretary of the Interior in 1996.

Program Needs

- SITE SURVEYS AND MONITORING. A comprehensive archeological survey should be designed for park developed areas, lake shores, trails, and backcountry areas. Documentation and evaluation of cultural resources is needed to determine their significance, treatment, and protection. Site-specific management plans should be developed for sites with special needs. Areas of the park where vandalism or illegal collection has been reported need to be surveyed and regularly monitored by law enforcement officers trained in ARPA procedures.

- OBSIDIAN CLIFF PROTECTION. The Obsidian Cliff quarry and sites are threatened by erosion, visitor access, and unauthorized collection of specimens. The area should be monitored to determine the effects of natural processes and human activities. Appropriate steps must be taken to protect the site's integrity, requiring additional patrols of the affected area.

- ARCHEOLOGICAL EXPERTISE. Additional staff or funds to hire contractors are needed to inventory, monitor, and protect archeological sites, as well as to complete planning and compliance requirements associated with construction and ground-disturbing activities.

Obsidian Cliff Historic Landmark Designation

"For nearly 12,000 years native peoples engaged in a cosmopolitan trade and industry in the volcanic stone called obsidian. As a raw material, it could be worked into tools sharper than modern surgical scalpels, and it could be transformed into jewel-like precious objects that continue to be revered as art and symbols into the present. One of the most renowned sources of obsidian was Obsidian Cliff. The ancient societies who used the Obsidian Cliff area were hunters and gatherers, and the societies all across North America to which that obsidian was traded varied substantially in economy, settlement, and socio-political and ceremonial organization over time and space. Obsidian Cliff includes intact mining features, workshops, and campsites of what can be called one of the first industrial areas by people in North America. The systematic excavation of archeological sites within Obsidian Cliff has the potential to yield important information regarding both the use and history of this obsidian in western North American prehistory, and the broader problem of intercultural transactions involved in the export of obsidian to distant users."

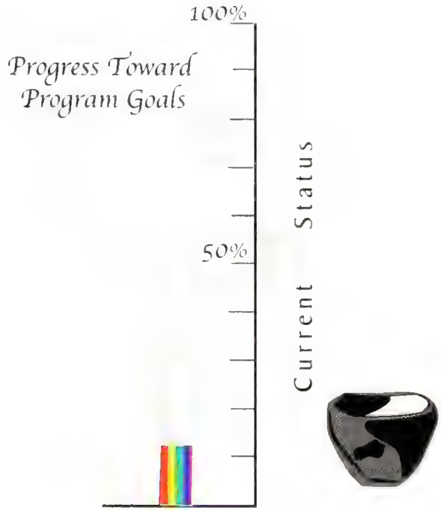
ARCHEOLOGY

STEWARDSHIP GOALS

- Professionally trained specialists perform systematic archeological surveys and evaluate sites for eligibility for the National Register of Historic Places.
- Park staff conduct regular efforts to monitor and protect archeological sites, including the Obsidian Cliff National Historic Landmark.
- Park staff and visitors gain an understanding of archeological resources, threats to them, and the means to protect them through well-informed interpretation and education efforts.

CURRENT STATE OF RESOURCES/PROGRAMS

- One archeologist is stationed in the park, but less than half of her time can be spent on Yellowstone projects; some work is done by contractors and outside researchers.
- Less than 1% of the park has been surveyed for archeological resources, and most surveys have been done in connection with road improvements and other construction projects. Funds may be available in 1999 for a ranger trained in archeological resource protection to assist at Obsidian Cliff and elsewhere.
- Neither park staff nor visitors have had much exposure to information about the park's archeological resources. Publications and exhibits have been proposed when funding is available.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 7,300
Non-Recurring Funds	
One-time Projects	$ 222,600
Fee Demonstration Projects	$ 30,000
Staff	0.6 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Science and Technology

Science permeates nearly every aspect of park management. Wildlife management requires answers to questions like how many grizzly bears are there, and what can be done to make the park safe for both bears and visitors? How does brucellosis in bison and elk differ from that in domestic cattle? Why has trumpeter swan reproduction declined? Decisions on the best techniques for preserving American Indian artifacts and historic buildings also result from scientific inquiry. Accommodating millions of visitors means addressing the engineering and resource protection problems of sewage treatment. Developing strategies for visitor use management involves social science to assess public opinion or survey visitors. While some people believe that scientific study should be subordinate to protecting visitor amenities or park resources, a closer look indicates how each Yellowstone endeavor is involved with science.

Learning from Yellowstone

Some writers have called the national parks "the best of what is left", and there is much truth to the statement. As one of the few landscapes remaining with all of its original wild components functioning as independently as possible with minimal human interference, Yellowstone provides superb opportunities for close study of a naturally functioning ecosystem. The results are important to non-park areas as well as to the park itself, because Yellowstone provides an ecological baseline from which the effects and influences of modern humans on the landscape can be assessed and compared.

The National Park Omnibus Act of 1998 calls for parks to use "a broad program of the highest quality science and information" in developing park management strategies. Because Yellowstone lacks the funds to do all of the needed research itself, it is dependent to a large extent on research done by scientists from other government agencies and academic institutions. However, their work, though significant in its own right, may not focus on the problems that are most urgent for park management purposes.

Despite the tremendous amount of research that has been done and the progress that has been made in understanding how Yellowstone functions as an ecosystem, there is much more to learn. Just as each plant and animal species has some effect on its environment, every human activity affects the park in some way. The human species has developed the means to live in most environments capable of supporting life; as a result, human demands and their by-products affect virtually every ecosystem on earth. As our capacity to permanently alter our environment has increased, so has our responsibility for its preservation. And to preserve the ecological processes that sustain Yellowstone's resources, we must understand.

SUPPORTING THE QUEST FOR KNOWLEDGE

Today, Yellowstone manages a modest but diverse science program that grew from humble beginnings.Formal scientific investigations in the Yellowstone area began in 1871, during an era of extensive government surveys. The primary emphasis of the first surveys was hydro-geological, but many other aspects of the region's character were also documented, including its archeology, flora, and fauna. Yellowstone's first research permit was issued on August 20, 1898 to Professor W.A. Setchel, "to collect and carry away such specimens of algous growth as he may deem necessary to carry out the investigation for which he is now visiting the Yellowstone National Park."

Since then, Yellowstone has attracted a growing number of researchers from an ever broader range of disciplines and institutions. In recent years, the park has authorized from 250 to 300 research projects annually. About 50 percent of these projects are conducted or supervised by college or university professors, or by researchers affiliated with

DEPARTMENT OF HIGHER LEARNING

Some of the topics for which permits were granted to researchers in Yellowstone in 1998:

- Geology and chemistry of hot spring deposits
- Effects of grazing on stream ecosystems
- Prehistoric high-altitude human-use site selection
- Nutritional ecology of bears
- Post-fire floristic development
- Response of geysers to small strains in the Earth
- Metabolites in willow species
- Investigations of underwater cultural resources in Yellowstone Lake
- Elevational distribution of mosquitoes
- Bacteria at low pH and high temperature
- Expansion of exotic snails across habitats
- Post-fire regeneration of whitebark pine
- Interactions of parasites and trout
- Architectural documentation of park buildings
- Paleomagnetic test of rotation of Heart Mountain
- Factors affecting animal jams in national parks
- Adaptations of cyanobacteria to solar irradiation
- Movements of bald eagles
- Visitor reaction to fee increases
- Impact of roads on bighorn sheep
- Solitary bees and their host plants
- Variation in snow pack

universities, and nearly 25 percent are undertaken by private foundations, corporations, or interested individuals. The remaining projects are carried out by park staff or by other federal or state agency scientists.

The combined amount spent on research in Yellowstone from all public and private sources has declined in recent years, from a high of $12 million a year in the 1980s to $5.6 million in 1998. Only about $534,000 (less than 10 percent) of these funds were provided by the NPS in 1998, and NPS policy requires that this money be spent on "mission-oriented" or problem-solving science rather than pure research. Most of the available NPS funds must therefore be directed to a few

high-priority problems such as bison management, while the funds from other sources are often spent tackling questions unrelated to the park's research priorities.

Although essential in providing a framework for making decisions about park management, research cannot always provide an immediate and clear answer to complex problems. Researchers often disagree among themselves about the most appropriate methodology and interpretation of the results, and advocacy groups on any issue may use the scientific opinion best suited to their interests. But scientific inquiry remains the only viable means available for determining how to best manage the park's resources.

Research Management

Since the late 1980s, when its science program peaked, Yellowstone has lost most of its science team; by 1995, nine researchers previously working in the park had been reassigned to the Biological Resources Division of the U.S. Geological Survey and transferred to other locations.

Yellowstone currently has one research coordinator assigned full-time to assist researchers in applying for permits and completing managerial reviews of their proposed studies, as well as in providing logistical support where possible. The loan of equipment such as vehicles, boats, and snowmobiles, and the provision of temporary lodging for scientists working in the park can make the difference between the success and failure of a project; assistance in choosing study sites and preparing for weather conditions can also be valuable to a visiting investigator. The park's research coordinator monitors the progress of studies, helps ensure that the park is aware of preliminary findings, and tracks the completion of final written reports.

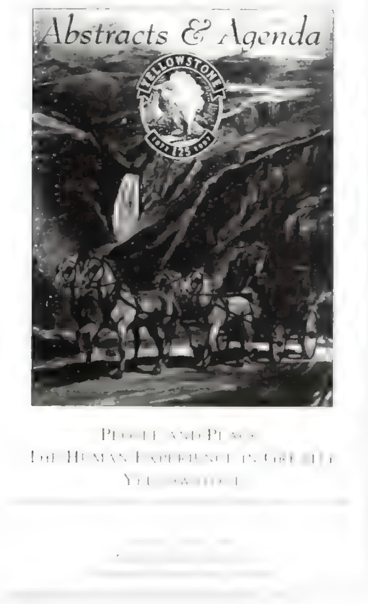
However, the management of science takes more than arranging vehicles and other logistical details. Park staff must be prepared to understand the research proposals made to the park, to monitor progress or the lack of it, interpret results, and communicate the implications to managers, co-workers, and the public. Park managers need scientific expertise and continual exposure to emerging research techniques, new knowledge, and potential applications to natural and cultural resource management issues.

Sharing Scientific Results

Understanding and sharing scientific results is a growing challenge, especially in places like Yellowstone where there are large quantities of research information to assimilate. The park has amassed a bibliography of more than 20,000 resource citations relating to the greater Yellowstone, and the number grows by about 200 references each year. The effort to organize and incorporate this vast body of information into park decision-making entails an average of 160 speeches given annually by the park's resource managers, hundreds of media interviews, and participation in numerous symposia.

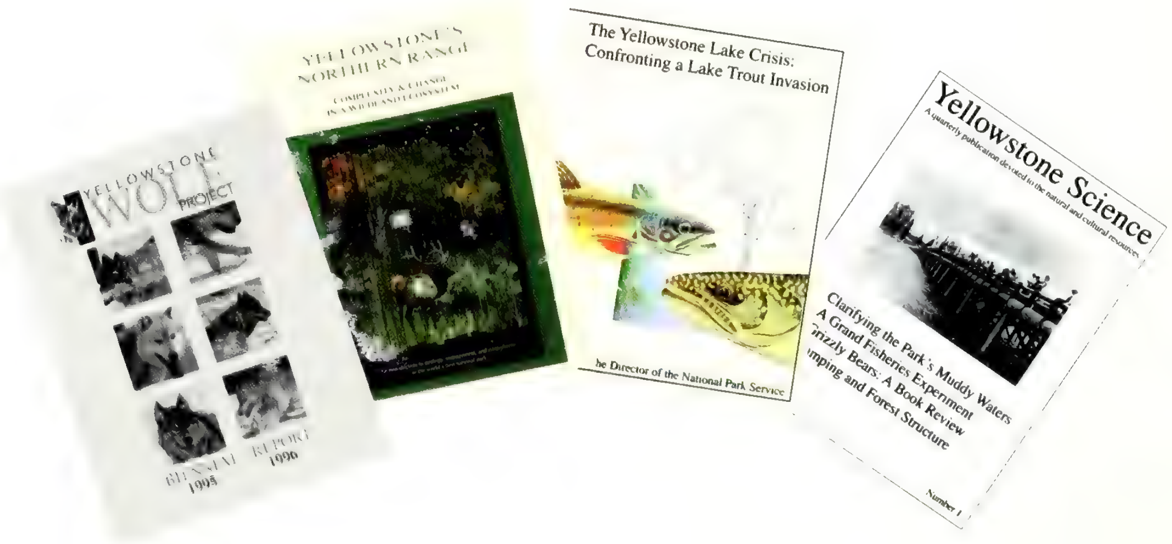
Conferences and training. Beginning in September 1991, the park has sponsored biennial conferences to encourage discussion of implications from wide ranging, high-calibre research on the region's natural and cultural resources. Themes of conferences held thus far include *Plants and Their Environments*, the *Ecological Implications of Fire*, *Greater Yellowstone Predators*, *The Human Experience in Greater Yellowstone*, and *Exotic Organisms: Native Biodiversity Under Seige*. Several hundred scholars and interested students have attended each conference, and many more can read the papers published in the subsequent proceedings and, soon, via the Internet. The conferences have been financially supported primarily through donations and registration fees paid by attendees.

The park sponsors annual resouce management training for its staff (see "Protecting Resources," page 6–62), that addresses a variety of issues. As funding and time permits, resource specialists also attend scientific conferences to share information and keep up with new techniques and knowledge in their field of expertise.



The printed word. Criticism that research results are unused or unavailable prompted the park to launch its own quarterly magazine, *Yellowstone Science*, in 1992. This semi-technical forum has featured articles on such varied topics as paleontology at Lamar Cave, historic mine tailings polluting Soda Butte Creek, Yellowstone cougars, snipe flies and other insect "vampires," grazing and fire effects on grasslands, and the evolution of mud volcanoes. Cultural resources and events have also been featured, including the history of fisheries management, a labor strike while building the Mammoth Hotel, the history of the road system, and the value of Yellowstone archives. A substantial portion of production costs are supported by a generous annual grant from the non-profit Yellowstone Association; the magazine is distributed quarterly to more than 2,000 readers, who through donations support approximately 25 percent of the annual printing costs.

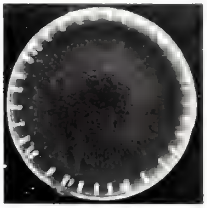
Other special reports have been released on *Yellowstone's Northern Range: Complexity and Change in a Wildland Ecosystem; Soils of Yellowstone National Park; The Yellowstone Paleontological Survey; Landforms of Yellowstone National Park; Yellowstone Wolf Project Reports 1995–1998; The Yellowstone Lake Crisis: Confronting a Lake Trout Invasion*; along with annual reports of research investigators and of the Yellowstone Center for Resources. Through such publications in print and on the World Wide Web and other outreach efforts, park staff hope to increase the informed discussion of park issues and policies by a variety of interested participants.


YELLOWSTONE WOLF PROJECT
BIENNIAL REPORT 1995 1996
YELLOWSTONE'S NORTHERN RANGE
COMPLEXITY & CHANGE IN A WILDLAND ECOSYSTEM
The Yellowstone Lake Crisis: Confronting a Lake Trout Invasion
he Director of the National Park Service
Yellowstone Science
A quarterly publication devoted to the natural and cultural resources
Clarifying the Park's Muddy Waters
A Grand Fisheries Experiment
rizzly Bears: A Book Review
mping and Forest Structure
Number 1

BIOPROSPECTING: A PARTIAL SOLUTION?

With its long winters, rocky infertile soil and youthful geologic history, Yellowstone might be an unlikely place to find a cornucopia of biological diversity. In 1998, microbiology topped the list of most-studied subjects in Yellowstone. The park's 10,000 geothermal features support the world's largest known concentration of rare heat-loving microbes. Known collectively as thermophiles, they lay undiscovered until the 1960s and, despite extensive research since then, an estimated 99 percent remain unknown to the scientific world.

Life at the extremes. Because they are able to thrive near and at boiling temperatures, and under extreme acidic and alkaline conditions that generally prohibit life of any kind, thermophilic microorganisms have generated huge interest from scientists from all over the world and led to major advances in fields including medicine, criminology, and industrial fermentation. Cloned versions of an enzyme produced by *Thermus aquaticus*, discovered in a Yellowstone geothermal pool in 1967, have revolutionized genetics technology, making it possible to reproduce large quantities of DNA from a tiny specimen. This process, which has become the cornerstone of medical diagnostics of genetic diseases and birth defects, has also found many other applications, including the only reliable test for early detection of the AIDS virus and the means for criminal identification on the basis of a single hair. Having earned its inventor a Nobel Prize, the breakthrough is expected to continue to earn hundreds of millions of dollars for its patent holder.



The value of Yellowstone research. The pursuit of commercially valuable chemical and genetic substances has brought new opportunities for Yellowstone to benefit from research on its biological resources. Although removing or disturbing national park resources is generally prohibited, exceptions are made for samples obtained within the specific limits of a research permit. The use of biological samples for research with potential societal benefit forms the basis of the "prospecting" concept and allows the NPS to grant "license" for an entity to use what they learn from their research. But the samples themselves and the genetic information they contain remain in the public domain. The perceived commercialization of park resources has elicited concern from segments of the public as well as NPS staff. But bioprospecting activities pursuant to a research permit in which only a small sample may be needed to further knowledge are an altogether different matter from "biomining"—the large-scale, recurring extraction of biological materials from the environment, which is prohibited by NPS regulations.

Closing a Loophole

Permitting private applications of research based on specimens taken from a national park demonstrates the practical value of preserving biodiversity and creates an incentive for the educational institutions biotechnology industry to support sustainable resource conservation. While several tropical countries such as Costa Rica have pioneered bioprospecting agreements—and reaped considerable financial return to help protect park resources—U.S. national parks have been slow to adopt this technique. For 25 years, they have granted free permits for the taking of scientific specimens, with no return to the parks or the taxpayers.

Through authority granted by the Federal Technology Transfer Act and by using cooperative research and development agreements negotiated with research firms, Yellowstone now stands to benefit from controlled research collections of biological specimens.

In August 1997, Yellowstone became the first U.S. national park to enter into a bioprospecting agreement. Diversa Corporation, a San Diego company specializing in the industrial application of biocatalysts, has pledged that a portion of its future profits from research on microorganisms sampled at Yellowstone will be given to the park for conservation and related scientific and public education activities. Despite a legal challenge to this ground-breaking agreement, the NPS intends to pursue similar arrangements to benefit society and park resource conservation programs.

The park superintendent's authority to issue permits for the collection of research specimens—with terms and conditions deemed necessary to protect park resources—provides the appropriate legal and policy mechanism for Yellowstone to govern access to and use of its biodiversity for research purposes.

Of the 272 research permits granted in Yellowstone in 1997, 50 were for microbial projects, about half of which were conducted by biotechnology companies or were industry-funded university projects. The results of such research during the last two decades have contributed to approximately 14 commercially viable or potentially viable products. These successes underscore the need for park oversight to ensure that appropriate collection methods are used, and that both the park and the public benefit from the results of such research.

The bioprospecting firms and educational institutions benefit from being granted access to rare and pristine resources and from a "license and certificate of origin" that verifies their development of a product from those resources. The benefits to the public, who own these resources, and to the NPS, which acts as a steward on behalf of the public, should be three-fold: scientific and educational information; donated tools and training to better understand the resources; and, if a product is financially successful, the compensation to the park that can be used to help accomplish its mission of conservation.

Inventory and Monitoring

Knowing the condition of its natural and cultural resources is fundamental to protecting and managing Yellowstone. Resource specialists design programs to build baseline inventories of resources, and develop monitoring programs to track the trend in resource condition. Field rangers help collect the necessary data on a variety of resources, including air and water quality, wildlife populations, cutthroat trout spawning and bear use of fish in tributaries to Yellowstone Lake. They also survey visitors on their fishing activity when exiting the park to calibrate the data obtained from volunteer angler report cards attached to the fishing permits. This information enables fisheries biologists to estimate the rates of fish capture and removal from various streams and lakes, and assess resulting changes in the fishery resources.

A Declining Chorus of Frogs?

In cooperation with Dr. Charles Peterson of Idaho State University, resource operations staff instituted a program in 1991 to monitor amphibians at the South Entrance Pond, Harlequin Lake, and wetlands in the Lake area. Yellowstone's amphibians include western boreal toads, tiger salamanders, and spotted and chorus frogs. One of the tools rangers use to assess amphibian populations is to listen for frog vocalizations during sampling periods. During such monitoring, an important and previously unknown boreal toad breeding site was discovered.

It appears that amphibian populations are declining in many areas of the western United States and around the world. Relatively little is known about the distribution and abundance of amphibians in the park, and the recent data is helping fill gaps in our knowledge of how to protect these native species.

The NPS has struggled to develop an inventory and monitoring program. In the 1980s special funds were used to test experimental approaches in 10 national parks across the nation, but Yellowstone was not selected to be one of those units. Only a small proportion of Yellowstone's natural and cultural resources are inventoried or monitored on a regular basis. Large, well-established parks like Yellowstone have tradionally funded long term studies of their most charismatic or troublesome species, such as bison, elk, or grizzly bears, but its social, economic, and cultural environments are much less understood. After 125 years, much remains unknown about Yellowstone—which is part of its appeal to both visitors and academicians.

The park provides excellent opportunities for pure and applied scientific investigation, and since the 1980s has worked hard at improving the support systems for visiting researchers. A long series of scientific reviews—more than a dozen since 1963, including one by the National Academy of Sciences—have urged the National Park Service to bolster its research program and make a "genuinely lasting commitment to science-based management." In 1997 the new NPS Director pledged to "rejuvenate natural resources in the NPS." To do so requires an adequate science and technology program with sufficient funds and staff to promote public awareness about the park's resources and a healthy debate over how they can best be protected in perpetuity.

TOWARD THE TIMBERLINE

The whitebark pine tree, a native conifer that grows at elevations from about 8,500 feet up to Yellowstone's timberline, provides pine nuts that serve as a critical fall food source for red squirrels, birds such as the Clark's nutcracker, and grizzly bears. But the trees take some 80 years to mature and only produce a bumper crop of seed-bearing cones every three to four years. To gauge cone production throughout the ecosystem, park staff sample transects—some of them 25 miles from the nearest road—in cooperation with the Interagency Grizzly Bear Study Team. Researchers have studied post-1988 fire mortality among whitebarks and established a correlation between years of poor seed crops and high instances of bear-human conflicts and associated bear management actions.

A more recent concern involves blister rust (*Cronartium ribicola)*, a disease brought from Europe that has been implicated in the death of almost 90 percent of the whitebark pine trees in and near Glacier National Park in northern Montana. Surveys done by scientists from the U.S.Geological Survey revealed that, as of 1997, only 4 percent of Yellowstone's whitebark pine stands had some level of blister rust infection. The long-term database being compiled from the whitebark pine transects will be valuable in determining how to conserve this high-elevation plant community.

Program Needs

- INCREASED EXPERTISE. The park needs more subject matter experts to develop and conduct resource inventories and monitoring efforts, as outlined in Chapters 2, 3, and 4. Additional science advisors are also needed to help managers frame questions and facilitate research on critical issues, and interpret results in ways that will contribute to making informed decisions.

- STRONGER SUPPORT SYSTEMS. Yellowstone lacks sufficient housing, office, equipment, and laboratory space for visiting researchers. The ability to provide more logistical support would entice more scientists and students to do mission-oriented research in the park.

- LEARNING LINKS. The park needs to bolster its use of current technology to store data and share scientific results and their implications with institutions of higher learning, libraries, and interested persons. To do so requires staff who can make the backlog of collected information accessible as publications, GIS themes, Internet applications and in other applicable formats.

SCIENCE

STEWARDSHIP GOALS

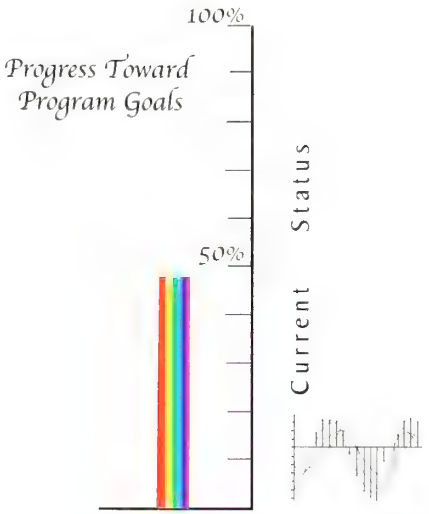
Park scientists guide research and monitoring efforts for a broad list of cultural and natural resource information needs to serve park management and other public interests throughout the ecosystem. Appropriate logistical support is available for visiting researchers.

Scientific assessments address top threats and possible solutions to problems such as alien species, lack of genetic diversity, protection of geothermal systems, and loss of cultural sites.

Park staff actively seek cooperative funding and partnerships to accomplish priority research studies done by the best available scientists.

Staff proactively present results and implications of research to broad audiences in and outside the park through a variety of media.

Care is taken to ensure that research investigations are performed safely and with minimal adverse effects on natural and cultural resources and visitor experiences.



CURRENT STATE OF RESOURCES/PROGRAMS

Park staff specialists coordinate with scientists researching a smattering of topics, but visiting researchers receive only minimal support. The park lacks a science overseer to set research priorities and facilitate cooperative studies.

Research provides limited but valuable data that is used in making decisions about issues such as geothermal protection, lake trout control, and management of bison, wolves, and grizzly bears; less research has been done on cultural resources and alien species' effects.

Partnerships with universities and non-profit foundations have bolstered the potential for cooperative studies; bioprospecting agreements hold promise for significantly increasing the park's research program.

Scientists, managers, and interested individuals find research results and implications in *Yellowstone Science*, annual reports, and presentations at interpretive programs and science conferences.

An interdisciplinary panel of park staff consider project safety, logistics, and effects on park resources and visitors before approving any research activity in the park.

1998 FUNDING AND STAFF

Recurring Funds Yellowstone N.P. Base Budget	$ 242,000
Non Recurring Funds	—
Staff	4.5 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Geographic Information Systems

Computer technology enables us to analyze the volumes of information that would otherwise be difficult to comprehend. Through geographic information systems (GIS) and other databases, the park's Spatial Analysis Center is compiling an information management system that park staff and the public can use to interpret and link many kinds of data, providing an ecosystem view of Yellowstone's resources. In 1998, the staff included one full-time geographer/GIS Specialist and two seasonal GIS technicians. Improving the park's GIS and data management capabilities has been difficult due to the small staff and the competition for their services—often for much better pay—in the private sector.

Hardware and software. Now that ARC/INFO, which is the NPS standard for GIS software, can be run on Windows NT, Yellowstone is shifting from Sun Unix workstations to a PC-based network that will enable trained staff to make maps, query data, and create their own data sets. By 1998, the Spatial Analysis Center staff were networking with other park users and training them in applications of ArcView, a powerful and user-friendly GIS software operating on seven workstations.

Data sets are still stored on hard drives connected to the Sun Unix system. Yellowstone has purchased a CD-recorder that can be used to create CDs and distribute park data sets to external users. The Environmental Systems Research Institute has donated web server software that will provide access to GIS data to anyone in the park with access to the park Intranet. Montana State University has provided valuable advice and personnel to assist in developing and applying GIS technology to projects such as Yellowstone's soil and landforms surveys and archaeological site mapping. A new partnership, begun with the Idaho National Energy & Environmental Lab (INEEL) in 1998, holds great promise for helping the park expand its GIS and data management capabilities.

Data about data. Federal law requires the park to meet specified data management standards, but the small staff cannot keep up with the park's backlog of information kept in many old formats. In 1997, the staff initiated a major project to develop "metadata"—a catalog of existing resource data sets—in order to make the information available to more park staff and outside researchers in the near future. Similar efforts are underway to organize and make accessible the high volume of research, inventory, and monitoring data that exist about Yellowstone's natural and cultural resources.

MAPPING YELLOWSTONE

Examples of the many layers now included in the park's GIS data base

- Animal mortality along roads
- Bedrock geology (1:125,000)
- Campsites (1:62,500)
- Cultural sites inventory (partial)
- Developed areas (1:125,000)
- Digital elevation models
- Digital orthophoto quarter quads
- Digital raster graphics (topo maps)
- Elk winter range
- Fire history
- Geologic faults
- Grizzly bear habitat
- Landforms (1:62,500)
- Non-native plants along highways
- Park roads and buldings
- Park and Gallatin NF trails (1:62,500)
- Precipitation (1:125,000)
- Seismic epicenters
- Rare animal sightings (1880 to present)
- Relief map (1:24,000)
- Soils (1:62,500)
- Thermal areas (1:24,000)
- USGS topographic maps
- Vegetation cover types (1:62,500)
- Watersheds (1:250,000)
- Yellowstone caldera boundary
- Yellowstone Lake bathymetry

Park staff have used global positioning systems (GPS) to create: more accurate roads and trails data layers, organized data for road reconstruction projects, analyses of exotic plant dispersal, geothermal mapping, and responds to Freedom of Information Act requests. Spatial analysts have also assisted other park staff in database creation, winter visitor use management for greater Yellowstone, lake trout habitat identification, and wolf location analysis. Resource specialists and managers from both in and outside the park increasingly use GIS images for reports, publications, and presentations, and to answer complex questions about interconnected resource issues.

Program Needs

- STAFFING. A larger staff is needed to develop additional data layers, update existing layers, and provide more training and assistance for park staff and other researchers.

- EQUIPMENT. Hardware and software programs should be regularly upgraded to incorporate new technology. Additional GPS units and work stations are needed to serve more users.

GEOGRAPHIC INFORMATION SYSTEMS

STEWARDSHIP GOALS

Professional GIS staff maintain up-to-date information about park resources and develop spatial displays, maps, ecological models, and planning tools for park staff and the public.

Data on all former, existing, and future research and resource management projects is available through a centralized database system.

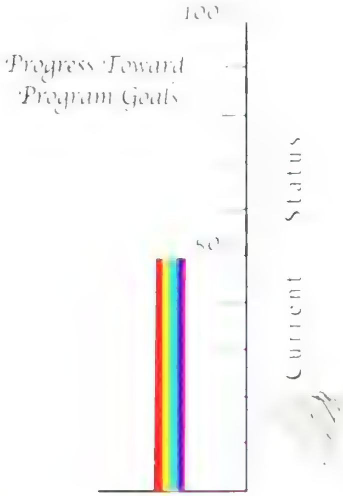
Park staff from each division have convenient access to global positioning systems, desktop GIS, and other tools for database retrieval, spatial analysis, and mapping.

CURRENT STATE OF RESOURCES/PROGRAMS

A functioning GIS provides park staff and visiting researchers with limited data and spatial analysis, but trained staff are too few; funding and staff have not kept pace with the demand for products and services.

A major effort to catalog existing data sets has begun, but historic records are dispersed in many locations and formats.

Desktop mapping, spatial analysis, and access to databases is not yet available to most users due to hardware, software, and networking limitations.



1998 FUNDING AND STAFF

Recurring Funds		
Yellowstone N.P. Base Budget	$	121,000
Cost Recovery Special Use Fees		
Non Recurring Funds		
[illegible]		33,200
Staff		2.9 FTE

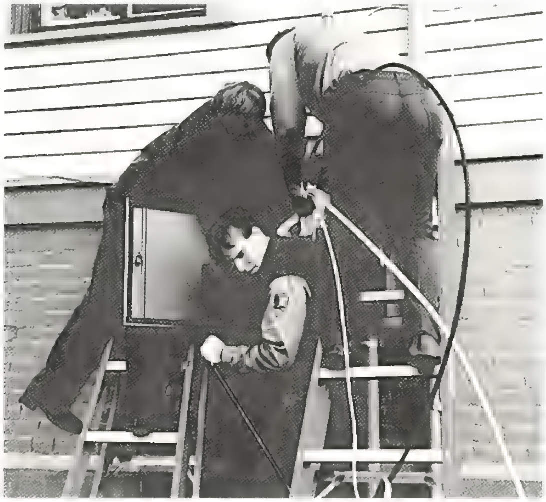
The human resources and funding necessary to professionally and effectively [illegible]

Communications Systems

Gone are the days when park rangers communicated over lines strung from cabin to cabin across the park, or could make do with a weekly volunteer snowmobile courier circling the park's snowed-in lower loop road, towing a sled full of mail, as was the practice less than a decade ago. Now, staff and visitors expect Yellowstone to provide instant information transfer and cellular phone communication. Such technology is considered essential for ensuring human health and safety, and to protect park resources.

While typewriters are still seen on a few park desks, computers are a standard tool for most employees, whether reservations clerks, fee collectors, exhibit designers, or budget analysts. As the park's information systems manager wrote in a 1997 report to the superintendent, "Yellowstone has begun to bring its computer resources forward from a period of stagnation to the cutting edge of technology." To make use of the enormous volume of information available about park resources and users requires up-to-date tools, including geographic information systems (GIS) and Internet access, the capabilities of which Yellowstone has barely tapped.

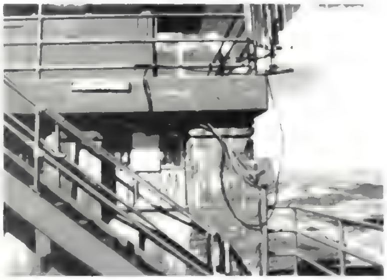
Along the road to the future, park staff encounter barriers as basic as geography, old wiring, outdated equipment, and insufficient training. But progress into the twenty-first century of technology and communication marches on.



TELECOMMUNICATIONS

The park's telecommunications operation can be thought of as five businesses rolled into one. A staff of nine ensures access to telephone and cellular phone services; installs and maintains two-way radio, alarm, and local area network systems; and supports the audio/visual equipment used in visitor centers, auditoriums, and for off-site presentations about park issues.

On the radio. The park has a large inventory of radio equipment, including more than 400 mobile and 800 portable radios, 58 fixed sites, and 125 remote-control units. However, radio traffic on existing channels of the UHF/VHF two-way radio system has increased three-fold since it was installed nearly 20 years ago. The radio channels are jammed and coverage deficiencies exist in critical areas. The system is unreliable and unable to handle the heavy traffic during the summer season, threatening the adequacy of emergency responses.



The park will need to have a new radio system by 2005 in order to comply with the narrow banding requirements outlined by the National Telecommunications and Information Administration. When this system is complete, it will double or even quadruple the number of radio frequencies available to support mobile land communications.

On the mountain tops. The park is using fee demonstration funds to improve radio coverage and system reliability by installing a new repeater and antenna on Sawtell and Lone Peaks, west of the park, renovating the analog repeaters located in the park on Mount Holmes and Mount Sheridan, and renovating the Mount Washburn radio site.

In the communications hub. Yellowstone runs a 24-hour communications center 365 days of the year, staffed by 8 to 11 dispatchers who serve as the link with employees working out in the field, often alone and sometimes at great personal risk. The multi-channel control consoles, microphones, and paging systems have been strained to capacity in recent years, but use of fee demonstration monies allowed a major renovation of the center in 1999. The redesign and upgrade will provide reliable communications and 911 services to help protect visitors and employees.

Security systems. Alarm systems are installed in more than 160 park buildings, including the communications center, the priceless exhibits located in the Albright Visitor Center, fee collections stations, park concessions' facilities and cash registers. Alarms have been added to various water and sewage plants and lift stations, as these sites require special systems that prevent or warn of wastewater overflows and ensure the safety of human operators. The alarm system computer equipment that is intended to alert the communications center of a problem regularly malfunctions and must be serviced several times a week. Some of the equipment was being upgraded in 1999 with funding from the fee demonstration program.

Phone home. The park owns a private branch exchange (PBX) telephone switching system that provides NPS-owned telephone service to the Mammoth, Tower, Norris, and Madison areas; service to other areas of the park is provided by other phone companies. A local area network system (LANS) at park headquarters, completed in 1996, provides more cost-effective transmission of voice and electronic data, but the park's phone bill in 1998 was $330,000, up 36 percent from 1988 because of increases in service charges. Efforts were underway to install similar LANS at Lake, Old Faithful, and several other outlying areas in 1999, and link them to headquarters by a wide area network that will substantially improve intrapark phone, radio, and data communications.

Metacom Cellular brought cellular phone service to Yellowstone in 1996 by placing the necessary equipment at Mount Washburn, Grant Village, and Old Faithful. For the first time, Bechler area rangers could call other park staff without driving 20 miles to the nearest phone. CommNet Cellular has installed its own cell phone site atop Mount Washburn and has a right-of-way to put equipment at the former U.S. West microwave site northwest of Mammoth. The park will require companies to share antenna and building installations wherever possible, in order to prevent the proliferation of conspicuous equipment.

Program Needs

The number of telecummunications workers has remained constant for the past 10 years, but as the complexity of the technology increases, so does the need for staff to maintain and support these systems.

A 100-line upgrade is needed for Yellowstone's PBX telephone switching system. The park also hopes to purchase more equipment and build the database needed for an enhanced 911 system, which would enable phone operators to pinpoint the location of an emergency while on the phone with the caller.

TELECOMMUNICATIONS SYSTEMS

STEWARDSHIP GOALS

Professional staff provide reliable, easy-to-use, radio, alarm, and telecommunications systems that are maintained and upgraded, or replaced as necessary to facilitate the demand for such services.

All park offices have computer access to an intrapark communications network.

Yellowstone staff provide instant information transfer through reliable, easy-to-use telecommunications and information systems.

The communications systems infrastructure facilitates protection of cultural and natural resources and helps ensure human health and safety.

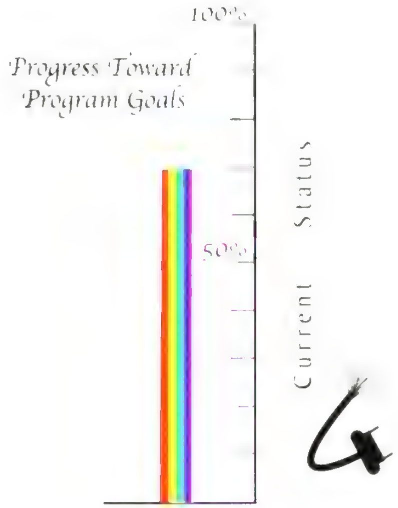
CURRENT STATE OF RESOURCES/PROGRAMS

Park radio systems are being upgraded; cell phones provide access to ranger stations previously isolated from park headquarters and other stations; alarm systems protect museums, fee collection stations, and utility systems with special safety requirements.

Many park offices lack access to the newly established intrapark network, but hardware and software purchases and system rewiring proceeds toward accomplishing this goal in 1999.

Inadequate systems and infrastructure result in slower response to emergencies and some inefficient use of human resources.

To avoid adverse effects on resources, resource specialists are consulted before new communications systems are installed. Placement of some power poles and lines, communications satellites, and other equipment impairs the esthetics of historic buildings and scenic vistas and poses some safety risk.



1998 FUNDING AND STAFF

Recurring Funds		
Yellowstone N.P. Base Budget	$	786,600
Cost Recovery/Special Use Fees	$	25,500
Non Recurring Funds		
Fee Demonstration Projects	$	96,500
Staff		9.0 FTE

The human resources and funding necessary to professionally and effectively manage the park's stewardship programs will be identified in the park business plan.

Computer Support

In 1998, the Computer Support Services staff consisted of five full-time employees supporting a network of about 400 computers in offices throughout the park. The ability of park staff to communicate with each other and with the outside world is still limited due to outdated hardware and software, wiring systems, and lack of training. While elsewhere "surfing the web" has become commonplace, this means of research is still largely unavailable to park employees.

Out with the old. Since the NPS established Microsoft Office as its standard software beginning November 1, 1997, Yellowstone has had to make a substantial investment in computer hardware capable of running the new application. But by late 1999, all of the park's personal computers were capable of running Windows, permitting access to the Department of Interior's network and the variety of reference and communications services available through the Internet.

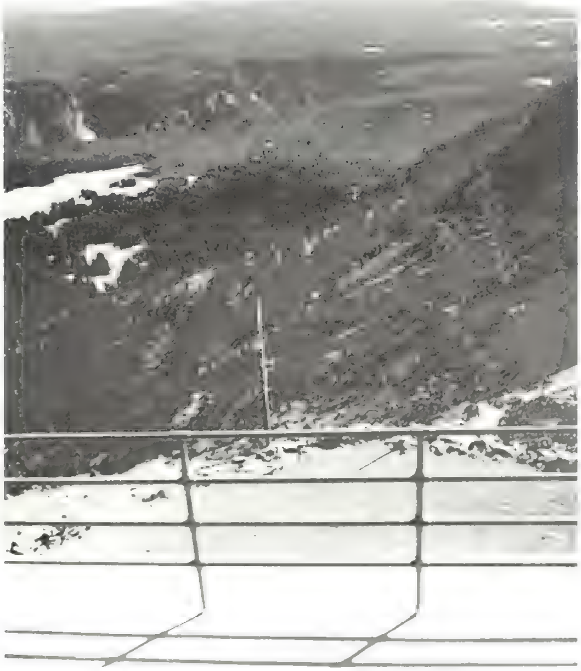
Preparing for the millenium. Congress provided funds for government agencies to inventory their computer system hardware, software, and data files and prevent their electronic systems from experiencing the Y2K bug. In 1998, park staff indentified potential problems in communications, emergency management, and utilities systems, and began implementing contingency plans to keep the park running smoothly.

In with the Intranet. As a subset of the Internet, a new park Intranet provides many employees with immediate access to the park's enormous information resources and makes it easier for them to share data ranging from road opening dates to research results.

The park's goal was to have 80 percent of its computers connected to the Intranet by November 1999, and the remainder by 2000. To meet these goals, in addition to the computer upgrades mentioned above, the park will need to have most outlying areas connected via a 256k-line to the main server in Mammoth or to a secondary server; Bechler and the Northeast, East, and South entrances will have dial-up access. Park offices are often located in historic buildings with massive walls and high ceilings, making wiring difficult and expensive to replace and service. To bring the Intranet to outlying areas, park staff must also deal with rugged topography and distances that span the size of a small state.

An employee hired in late 1998 and assigned to the Interpretive Division is focussing almost exclusively on improving the park's website and making more park information available via the Internet.

Rewiring of several old buildings in Mammoth had begun by late 1997, permitting a switch to Ethernet and improved information transfer. A plan to phase in parkwide connectivity is expected to take another year to complete. By then, technology is likely to have already outpaced the park's progress, and the goal is to implement a cyclic maintenance program similar to that needed for the park's buildings, roads, and vehicles.



Program Needs

Information management staff have a four- to six-month backlog of work just to implement planned system upgrades and install recently purchased hardware and software. As use of the Intranet and other computer services grows, the park needs to hire additional computer specialists to trouble-shoot immediate problems, convert information and make it widely accessible to users, and manage the complex wide-area network. Additional equipment is needed to connect park headquarters to all stations in the park interior.

COMPUTER SUPPORT

STEWARDSHIP GOALS

Professionally trained staff keep Yellowstone up to standards for use of computers, electronics, and information management systems to provide current data in support of the park's primary missions.

Yellowstone passes into the new century with no major system failures.

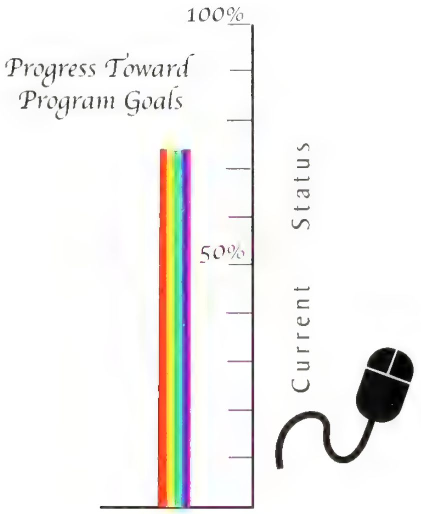
Appropriate public access is provided to Yellowstone data in up-to-date, user-friendly formats.

CURRENT STATE OF RESOURCES/PROGRAMS

Park staff keep computer systems operating to provide communications, information storage and retrieval but despite substantial recent investments in hardware and software, systems are not up to industry standards for database management and Internet access.

Staff are addressing "Y2K" concerns and have requested funds to upgrade equipment.

Public access to park information via computer technology is very limited.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 283,400
Non Recurring Funds	
One-time Projects	$ 27,600
Capital Improvements	$ 27,000
Staff	5 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

The Greening of Yellowstone

In recent years, Yellowstone has been developing ways to protect and improve environmental quality in the region through partnerships with local communities, private industry, and other federal and state agencies. In October 1996 and May 1998, workshops on the "Greening of Yellowstone" were held to discuss topics such as recycling, energy use, transportation, water and waste management, and the use of alternate fuels and biodegradable materials. The workshops, which were jointly sponsored with the states of Montana and Wyoming, Montana State University, the U.S. Department of Energy, and private groups were designed to spur sustainable resource use among participants and generate local markets for recycled materials.

Yellowstone has recently begun using all "green" cleaning products with naturally derived ingredients. Employees recycle batteries, motor oil, used paint thinner, and materials such as glass, aluminium, tin cans, cardboard, office paper, and newsprint.

A biodegradable diesel fuel alternative provided by the University of Idaho is used in a truck donated to the park by the Dodge Truck Corporation.

Alternative snowmobile fuel and lube oils were tested to assess their impacts on emissions and engine performance in a joint project with the state of Montana.

Regional recycling and composting programs were made possible through partnerships with adjacent counties in Montana.

Recycled plastic lumber were provided at reduced cost by Unilever Corporation of America and used to reconstruct board walks around Old Faithful Geyser.

Recycled timbers were used in construction of the new Snow Lodge at Old Faithful

An Energizing Partnership

In May 1998, Yellowstone formed a partnership with the Idaho National Engineering and Environmental Laboratory (INEEL), a Department of Energy office with experience in developing alternative energy sources and technologies to reduce energy consumption and impacts. By evaluating Yellowstone's electric power grid, the INEEL has helped the park make more cost-effective use of its high voltage power lines.

The INEEL has also supported the effort to maintain air quality in the region through the Greater Yellowstone Clean Air Partnership, a consortium of federal and state agencies, and a proposal to include an area encompassing Yellowstone, Grand Teton, and Glacier national parks in the Clean Air Initiative, a nationwide program. In addition to being given use of INEEL surplus busses, Yellowstone has benefitted from the agency's expertise and computer resources on collaborative research projects ranging from DNA-based detection of brucellosis to a thermal area inventory.

Program Needs

- Correcting unsafe conditions.

In addition to the park's cultural history, the old ways of doing business have left a legacy of unsafe conditions that need to be rectified. Lead paint, radon, asbestos, and leaky underground fuel storage tanks are but a few of the environmental and human health concerns the park is legally required to address without additional funding.

- New ways of doing business.

Additional staff and funds would help the park use new technologies to reduce, reuse, and recycle materials; to improve energy efficiency and design of old and new facilities where possible; and to address the growing demands placed on the limited resources of the park. New ways of doing business will be expected of park staff and others who work in Yellowstone National Park.

THE GREENING OF YELLOWSTONE

STEWARDSHIP GOALS

All park staff and programs strive for sustainable use of resources, energy conservation, and environmental stewardship aimed at enhancing the park's conservation mission.

Total energy consumption within the park is reduced from 1995 levels; generation of waste from within Yellowstone is minimized, and comprehensive recycling programs are in place.

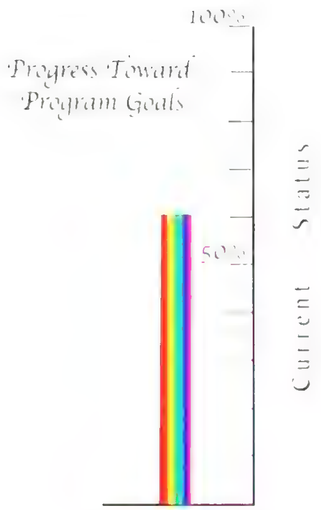
The park and its public and private partners work together to use the best available technology for waste management, pollution control, construction, and operation of park infrastructure.

CURRENT STATE OF RESOURCES/PROGRAMS

A new "greening" initiative has begun to educate park staff in sustainable principles and techniques; much broader education and acceptance is needed among park staff and visitors.

In recent years, the park has increased its efforts at recycling and experimented with alternative fuels, composting, and cleaner, safer products for everyday maintenance work.

Public and private partners joined the park at greening workshops in 1996–1998 and are aggressively pursuing new technology to apply in park operations.



1998 FUNDING AND STAFF

Recurring Funds	$ 3,200
Non Recurring Funds	$ 30,000
Staff	0.5 FTE

The human resources and funding necessary to professionally and effectively [illegible]

Managing Public Use and Services

Yellowstone National Park was established in 1872 as a place in which natural and cultural resources would be preserved for future generations — "for the benefit and enjoyment of the people." Over time, it has become one of the best-loved and most famous of parks in the world.

In Yellowstone's first decades, when the concept of a national park was still novel, the park's managers realized that public support would be essential to its survival. They aggressively promoted the park and developed its infrastructure to provide a variety of services that would attract a broader range of visitors than those willing to rough it and fend for themselves in a wildland. Their efforts, along with the new convenience of travel by automobile, led to a steady increase in visitors during the 1920s and '30s, and an upsurge after World War II. By now, more than 110,000,000 visits to the park have been tallied, including many by people who have come back year after year. For countless more, Yellowstone exists as a vivid icon of the imagination they hope to see some day.

But as Yellowstone has grown in popularity, so has the need for setting some limits on visitor activities. Gone are the days when a family could pull its wagon off into the woods anywhere they chose, pitch a tent, and set up housekeeping for several weeks. The ban against killing wildlife began in 1883 after thousands of elk and other animals had been shot in just one year. Visitors are now required to keep a safe distance from the dangerous geothermal features that once were damaged by visitors who climbed on them, bathed in them, and even used them to do laundry.

"...if it ever becomes the resort of fashion, if its forests are stripped to rear mammoth hotels, if the race course, the drinking saloon and gambling table invade it, if in short a sort of Coney Island is established there, then it will cease to belong to the whole people and will be unworthy of the care and protection of the national government."

— Lt. Dan Kingman, U.S. Army Corps of Engineers, 1883

Fishing and camping are subject to rules; collection of flowers, antlers, petrified wood, and artifacts is illegal except by permitted researchers; and the feeding of wildlife, once popular for visitors and staff alike, is strictly prohibited. When justified by concern for park resources and human safety, such restrictions have brought few objections from the public.

Until the 1960s, the solution to growing national park visitation was thought to be simply more rules and the construction of more facilities, which led to large developments like those at Grant and Canyon villages. But after a decade of "Mission 66" (a 1955 initiative to build national park facilities across the United States by 1966), a new era of environmental consciousness prompted a shift toward the view that visitor accommodations should be located outside the parks, in nearby communities.

Since the 1970s, some funding has been allocated to improve Yellowstone's infrastructure through upgraded roads and facilities. Over the long term, however, the net effect has been to enable the park to accommodate more visitors without increasing the staff and facilities needed to maintain both the resources and the quality of visitors' experiences. As at many other national parks, burgeoning visitation at Yellowstone has led park managers and visitors to wonder if it is possible to satisfactorily provide the desired experiences for so many people.

Experiments with alternative transportation systems, day-use permits, and other restrictions on visitor use will increase in the future. While the park's responsibility to both present and future park visitors may require such limits in order to protect its natural and cultural resources, Yellowstone must also remain a place of inspiration, rejuvenation, and learning. Decisions about how the park is to be managed must provide not only for the people who arrive at Yellowstone through its traditional entrances, but for those who want to experience Yellowstone through off-site programs and the use of evolving technologies such as the Internet, CD-ROMs, and television productions.

Visitation Trends

Annual visitation. The number of visitors Yellowstone receives fluctuates from year to year in response to many factors—changes in the economy, world wars, the price of gas, and rainy summers—but the overall trend has been upward. The park's estimated annual visitation first exceeded 10,000 in 1897, 100,000 in 1923, 1 million in 1948, and 2 million in 1965. The 3 million threshold was first crossed in 1992, when visitation reached 3,144,045. That record has not yet been topped, although the count has continued to exceed 3 million in all but two years through 1998, when it was 3,120,830

In late 1996, the entrance fee was raised from $10 to $20 per car for a seven-day pass, good at both Yellowstone and Grand Teton ($40 for an annual pass). This fee increase was made in connection with the newly authorized "Fee Demonstration Program," under which participating national parks are permitted to keep a portion of the entrance fees they collect instead of passing all of the revenues on to the U.S. Treasury. A 1997 visitor survey found that more than half of the 199 respondents were unaware of the program before coming to the park, but 71 percent thought the fee amount was about right.

In recent decades, the annual visitation estimate has been derived from a mechanical count of the vehicles coming through the park entrances (not including "nonrecreational" vehicles using Highway 191) and the average number of people in each vehicle. Because many people who live or vacation in greater Yellowstone may make repeat visits to the park during the summer, the estimate represents the number of park visits made, not the number of different visitors.

When visitors come. Seventy percent of the park's visitors come from June through August. During the peak season (early July through mid-August), facilities such as campgrounds, lodging, visitor centers, restaurants, service stations, and shops are used at or beyond their capacity. In July 1998, the average daily visitation was 26,763, with about 18,000 people (including employees) spending the night in the park.

In recent decades, much of the visitation increase has come during the "off" season—fall, winter, and spring. From 1976 to 1996, while summer visitation rose 12 percent, winter visitation (December through March) doubled as the popularity of snowmobiling soared, with the park averaging 1,500 to 1,800 visitors a day in February

Where visitors come from. Studies done in 1989 and 1992 estimated that 74 to 81 percent of all park visitors came from outside the surrounding states of Idaho, Montana, and Wyoming. The most recent detailed data on international visitors, collected in 1989, showed that 7 percent of all park visitors were international—almost half from Canada, with Germany contributing the second largest number. In a 1995 survey, however, the three adjacent states accounted for about 35 percent of winter visitors, and foreign countries about 3 percent.

Typical park visitors. Yellowstone receives more male than female visitors, and its visitors have on average more formal education than does the general public. The July 1989 survey of park visitors indicated a median age between 36 and 40. A survey of visitors who stayed in the park's hotels and cabins in 1994 found that the average age was 46; 44 percent of these guests were age 50 or over. Of the more than one million vehicles that entered park gates in 1996, 92 percent were private automobiles or recreational vehicles, seven percent were snowmobiles, and only one percent busses or snowcoaches.

About half of the people coming through Yellowstone's entrances are repeat visitors. A 1994 winter survey found that in deciding whether to visit Yellowstone, 36 percent of the respondents had based their decision on a previous visit to the area and 42 percent had relied on the experience of family or friends. Promotional materials, TV, and radio had the least influence.

Frequent visitor activities. For visitors surveyed in the summer of 1989, the most common activities while in the park included viewing wildlife (93 percent) and thermal features (85 percent), photography (83 percent) and walking for pleasure (75 percent), going to a visitor center or museum (73 percent), and shopping (67 percent). They also picnicked (41 percent), went to an interpretive program (15 percent), and took a backcountry hike (9 percent). Of these visitors, 48 percent spent one day or less in the park; about 30 percent spent more than two days; 21 percent spent at least one night in a developed campground and less than 1 percent used a backcountry campsite.

Occasional visitor difficulties. In 1998, when nearly 4 million people came through the park (3 million recreational visitors plus 1 million people entering for business or other non-recreational reasons):

- There were 518 traffic accidents and 39 vehicle break-ins.
- Park rangers gave out 3,888 violation notices, made 97 arrests, and conducted 31 search-and-rescue operations for missing visitors.
- Of those reprimanded, 675 visitors were warned about carrying firearms in the park and 51 were cited for firearms violations, 222 were charged with camping violations, 201 for being in closed areas, 72 for snow-machine violations, 110 for fishing violations, 15 for swimming or bathing in thermal features, and 7 for hunting wildlife in the park.
- About 9,000 visitors received treatment from clinic medical staff in the park; 361 were transported by land or air ambulance; and 6 died—2 from cardiac arrest, and 4 from traumatic injuries or accidents.

VISITOR USE MANAGEMENT

Those who believe that national parks should be accessible to as many people as possible may regard them as a commodity to be marketed in the same way as other tourist activities. However, protecting both the park's resources and the quality of the visitor's experience means that public use has to be managed and in some cases restricted. Increasing public use has inevitably had some negative effects on the natural and cultural features that make Yellowstone the national treasure that it is. Just as important, visitors affect each other; the larger the number of people in the park, the less each person can be assured of the quality outdoor experience for which Yellowstone is valued.

Visitor use management is a process of determining what the desired experiences and resource conditions are, identifying the discrepancies between the desired and the existing situation, and developing a plan to reach the desired situation. However, the baseline data on natural and cultural resources needed to carry out this process are often lacking at Yellowstone. So far, the emphasis on visitor use management at Yellowstone has focussed on winter, which has seen the largest increase in visitation in recent decades. (See "Winter Use," page 6-38).

Surveying for satisfaction. Widespread support for the country's national parks has been indicated in opinion polls and in the outpouring of complaints during the federal government shutdown in December 1995, when Yellowstone kept the gates open but eliminated all but emergency services. Yet few efforts have been made to survey how well Yellowstone is meeting the expectations of its visitors. In 1997 NPS managers set a goal that 80 percent of park visitors will be satisfied with park facilities, services, and recreational opportunities by 2002. To reach this target, however, park managers need to know what their visitors want.

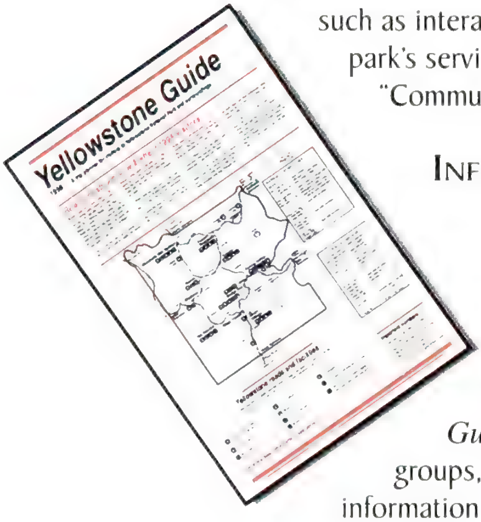
Although a variety of visitor surveys have been done at Yellowstone over the years, most have not used statistically sound sampling methods or have focused on specific issues such as winter use. In July 1998, for example, of the 110 visitors who completed a brief survey card, 95 percent thought that the overall quality of the park's facilities, services, and recreation opportunities was good or very good, but 32 respondents wrote comments on the poor quality of the park roads.

Balancing the needs of preservation and public use is difficult, and there is a wide divergence of public opinion on what the priorities should be. While the park's "products" cannot be constantly redesigned to meet public demand, Yellowstone needs to survey the public—both the people who come and those who have not—about the experiences, services, and facilities they would like to find in the park.

Preserving the Park Through Interpretation and Education

Educating visitors about Yellowstone's natural and cultural features is an essential part of providing for their enjoyment "in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." Ideally, interpretation begins before a visitor arrives and has an influence that lasts long after the visit ends, enabling each visitor to experience Yellowstone in a personal way while meeting the park's goals for resource preservation and support.

All NPS, Yellowstone Association, and concessioner employees who talk with visitors contribute to this learning process. Thousands of written requests, phone calls, faxes, and electronic mail messages asking for everything from employment advice to help with student homework are referred to staff throughout the park. But the primary responsibility for using interpretation to enhance visitor experiences and protect park resources is met by Yellowstone's interpretive staff—22 permanent and an average of 60 seasonal employees. Their mission is to increase public understanding and appreciation of park values and resources through a variety of formal and informal personal contacts, indoor and outdoor exhibits, publications, and audiovisual media. During 1998, 189,909 people attended interpretive programs and more than twice that many visited the park's official website. An interpretive specialist has been assigned to enhance this website through "virtual tours" of park attractions, interactive maps, and information retrieval on a wide range of park topics. The use of this technology and others such as interactive computer kiosks holds great promise for broadening the park's services to more non-traditional and diverse audiences. (See "Communications Systems," page 5–16.)



INFORMATION AND ORIENTATION

Before arriving. Thousands of people contact the park or its website in advance of a planned trip, requesting maps and information about weather, where to stay, and what to do. Each year park staff in several offices answer more than 29,000 phone calls, mail the *Yellowstone Guide*, a vacation planner, to more than 40,000 individuals and groups, and send 9,000 letters in response to specific requests for information.

INTERPRETING NATIONAL PARKS

Persons unfamiliar with NPS culture may ask interpretive rangers "Which foreign language do you speak?" As Freeman Tilden, often called "the father of interpretation," wrote in 1957, "Interpretation is more than just information: it is an art which combines many arts, the chief aim of which is not instruction but provocation…Any interpretation that does not somehow relate…to something within the personality of experience of the visitor will be sterile."

Thus park rangers are still taught the maxim: "Through interpretation, *understanding;* through understanding, *appreciation*; through appreciation, *protection*."

At park borders. Outside the park entrance in West Yellowstone, Montana, an interagency visitor center opened in 1994 with staff provided by Yellowstone, the Gallatin National Forest, and the local chamber of commerce. The presence of professional interpreters would better prepare people for their park visits, but funding has been insufficient to permit regular staffing. A similar facility in Jackson, Wyoming, south of Yellowstone and Grand Teton National Parks, is not currently staffed by any Yellowstone employees, although most people coming into the center plan to visit the park.

Staff at the five entrance stations hand out the park newspaper (updated four times a year) and a park map and brochure. During most of the year, they cannot take the time to answer detailed visitor questions without causing traffic jams and irritation among those waiting in line. Limited translations of critical safety and resource protection information are available in French, German, Spanish, and Japanese, but translations into additional languages and a greater extent of translated information are needed.

Park visitor centers. From late May through early October, visitors can receive basic information about the park's features, regulations, and activities and obtain permits for fishing, boating, and backcountry camping at the five major visitor centers (Mammoth, Canyon Village, Fishing Bridge, Grant Village, and Old Faithful), at four ranger stations (Lake, Bridge Bay, Tower Junction, and the South Entrance), and at three smaller contact stations (Norris Geyser Basin, Madison Junction, and West Thumb).

The nine major visitor contact facilities, which range in age from 30 to nearly 100 years old, are shabby and too small to even provide adequate restrooms for the more than two million people who pass through them each year. Insufficient staff and space at information desks make it impossible to serve more than a few visitors at a time, causing long lines to form and frustration to flare as people wait 20 minutes or more for assistance. The tiny lobby at Old Faithful has no space for exhibits and is often so jammed with visitors that most give up before receiving the information they want; until 1999 it showed a 30-year-old film in a cramped auditorium on a rickety projection system. Fortunately, contributions from the Yellowstone Association have provided funding to develop two new films at Old Faithful, and the first $1.25 million donation toward a new visitor center there has been pledged by Unilever Foods, North America. The Yellowstone Foundation (see page 8–5) is seeking other donors to contribute the remainder of the estimated $18 million that will be needed to construct and equip the facility. Using fee demonstration funds, the park plans to revamp the Canyon Visitor Center by 2004.

During the winter season, only the Mammoth and Old Faithful visitor centers are open. Park staff are also stationed at four warming huts that provide oversnow visitors with information about travel conditions and a brief respite from the cold. The dangers of Yellowstone in winter make this service especially important, but limited staff and space at the huts compromise the services that can be offered. (See "Winter Use," page 6–38).

Walks, talks, and demonstrations. During 1998, in addition to the 189,900 visitors who participated in guided walks, talks, and programs, an estimated 271,530 were contacted informally on boardwalks, at overlooks, and at wildlife viewing areas. However, declining budgets have resulted in an increasing focus on those activities that serve the greatest number of people—staffing visitor centers and the most popular attractions such as the canyon rims and geyser basins during peak periods of visitor use.

Nightly slide programs on a variety of topics are offered at the seven major campgrounds during the summer season, but talks can only be given sporadically, if at all, at the four other campgrounds. Daytime activities during the peak season include short talks and guided walks near major attractions such as Old Faithful and Mammoth Hot Springs. Longer guided hikes to areas like Specimen Ridge, Mount Washburn, and Pocket Basin, although popular, have had to be eliminated because they require relatively large amounts of staff time for relatively small numbers of visitors. Almost no scheduled activities are offered during spring and fall, a situation that brings many visitor complaints.

Audiovisual presentations. Although audiovisual presentations are often the most effective way to present complex ideas such as geologic history, only four of the park's visitor centers still show films or automated slide presentations, and the programs are outdated. These facilities also need new projection systems, screens, sound systems, acoustic treatments, and seats; the equipment is so antiquated that repairs are becoming impossible because replacement parts are no longer made. Two new films about Yellowstone's geothermal features and their microscopic ecosystems are being developed with funding from nonprofit organizations, but the park lacks even a basic visitor orientation videotape, and none of the existing presentations meet accessibility requirements for audiences with hearing and visual impairments.

Indoor exhibits. Well-designed exhibits can contribute significantly to visitor understanding and enjoyment of the park. Yet exhibits at seven of the nine visitor facilities are either nonexistent or from 20 to 60 years old. Exhibits are needed on the park's geology, wildlife, and human history that make use of technologies such as interactive computer kiosks to effectively communicate with media-savvy audiences. The relatively new exhibits at the Norris Geyser Basin Museum and the Canyon Visitor Center, which were made possible through partnerships with private organizations, were intended to be only temporary.

VISITORS STAMPEDE TO NEW EXHIBIT

An exhibit on the history of Yellowstone's bison and the controversies surrounding their management has been on display at the Canyon Visitor Center since August 1997. Created through a partnership with the Buffalo Bill Historical Center in Cody, Wyoming, the exhibit features two large dioramas of bison. Visitation at the center nearly doubled after the exhibit opened.

Outdoor exhibits. Roadside and trailside exhibits can provide vital safety and regulatory information 24 hours a day. The park also has 12 self-guiding nature trails in popular areas such as the Upper Geyser Basin, Fountain Paint Pots, and the rims of the Grand Canyon. Most visitors learn about these and other park features on their own, using either trailside exhibits or self-guiding publications. However, more self-guiding trails are needed in popular areas, and only a fraction of the exhibits that need to be replaced each year because of severe weather, geothermal deposits, and vandalism receive any atten tion because of insufficient funds. Starting in 1991, the park began installing a new generation of more durable exhibits made of porcelain enamel; 120 are now in place. Of the additional 600 needed, about 100 have been funded and are in production.

Junior Rangers

Each summer, about 13,000 children from the ages of 5 to 12 learn about park resources and safety precautions through a specially designed newspaper, *Yellowstone's Nature*. Each child who successfully completes the series of activities, as recorded by a park ranger, is awarded his or her "Junior Ranger" patch—accompanied by a ceremonial announcement in a park visitor center.

The Sakier Foundation has provided $6,500 in support, which the park supplements by charging each participant a small fee.

Environmental education. Since 1985, nearly 10,000 students and their teachers have completed *Expedition: Yellowstone!*— a program based at the historic Buffalo Ranch bunkhouse in Lamar Valley where students learn about park resources and environmental issues. About 80 percent of the participants come from schools in Montana, Idaho, or Wyoming; the rest travel from across the nation. In 1995, the park began charging schools a small fee per student to help pay for the four seasonal interpreters and the supplies and materials used during the program.

Park staff also go to schools to present educational programs, develop park-related curricula for teachers, and organize special events such as Earth Day activities. Under a 1999 pilot program targeted at West Yellowstone, high school students had the opportunity to assist with the Junior Ranger Program while receiving on-the-job training. Over time, this program to strengthen the ties between the park and its neighbors may be extended to other gateway communities.

Publications. Each year the park produces about 60 publications about Yellowstone for both the visiting and non-visiting public, including four park newspapers, of which about 850,000 are distributed to vehicles entering the park; over 750,000 copies of seven self-guiding trail publications; the Junior Ranger newspaper; brochures on activities such as skiing, hiking, bicycling, boating, fishing, and horseback riding; and the quarterly magazine, *Yellowstone Science* (see "Sharing Scientific Results," page 5–4).

With support from the Yellowstone Association, the park's primary partner in education and interpretation, sales of publications in Yellowstone's visitor centers generate funds to meet a wide array of needs (see page 8–3). For example, a special grant enabled park staff to develop foreign language translations of the park map and guide, and a condensed version of the park newspaper in French, German, Spanish, and Japanese.

Special initiatives and outreach. Park staff from a variety of offices represent the park at public meetings and speak to congenial as well as hostile people, providing information and explaining the park's position on controversial topics. On average, interpreters and resource specialists make 160 such presentations each year, reaching more than 11,000 people. In 1998, 50 requests for programs had to be declined due to lack of staff. In 1999, the Division of Interpretation launched an outreach program in which supervisory staff attend community meetings on a regular basis to provide a conduit for information between local residents and the park.

Radio and television broadcasts. As they drive through the park entrances, visitors can dial 1610 AM on their radios to receive a brief recorded message with basic information and regulations, but few use the system. With updated equipment and additional staff time devoted to it, the radio broadcast could advise visitors of road closures, construction delays, the weather forecast, and the availability of such services as campgrounds and lodging. A local cable channel, previously used as a community bulletin board, also offers added potential for spreading visitor information in the electronic age.

Accessible interpretation. Most visitor facilities are at least partially accessible by persons with physical disabilities, and additional retrofitting is being done where necessary. However, many of the interpretive media offered at visitor centers need to be redesigned to meet accessibility requirements. The park's first fully accessible self-guiding nature trail, "The Forces of the Northern Range Trail," is nearly complete.

Program Needs

- SURVEYING THE PUBLIC. Anecdotal data and comment forms which the park has from a small segment of the public provide at best an incomplete understanding of the views of the full range of park visitors and the general public. Opinion surveys would help us assess where to focus our resources to most effectively achieve our goals for public education and resource protection.

- VISITOR CENTERS. A backlog of more than $100 million dollars in capital improvements has been identified to update the park's visitor centers to acceptable standards of accessibility and safety, and to equip them with appropriate exhibits and audiovisual presentations. More advanced technologies, such as digital monitoring and relay of geyser prediction information, are important if both the resources and visitors are to be well served. In addition to better staffing of the interagency facilities in West Yellowstone, Montana, and Jackson, Wyoming, visitor centers are needed in other gateway communities.

- SELF-GUIDING TRAILS. The 12 existing trails require upgraded or additional trailside exhibits and booklets to adequately explain park features and issues. At least four more self-guiding trails are needed (Firehole Lake, Mount Washburn, Artist Paint Pot, and Natural Bridge) to facilitate safe visitor access and resource protection.

- RESTORING IN-DEPTH PROGRAMS. Many parks have begun to charge for guided walks and other activities. At Yellowstone, some specialized programs could be maintained as pay-if-you-go activities. This would enable the park to restore some educational activities for that segment of the public who is willing to pay for them.

- ADDITIONAL STAFF. Staffing remains at less than half of what is needed to provide information at the park's visitor centers and major attractions throughout the year at levels appropriate to visitation patterns and trends. Visitor surveys have shown that 26 percent of the respondents are strongly interested in personal interpretive services, yet the staff were able to reach only 6 percent of visitors with such programs in 1998. Additional staff are also needed to provide "nonpersonal" interpretive services—publications, exhibits, audiovisual media, and website management—to meet the park's goals for outreach to nontraditional audiences and the general public.

- UPGRADE EQUIPMENT. Developing kiosks and a website with interactive capabilities, and using the park's radio and television infrastructure to their full potential would breach many gaps in interpretive services both inside and outside the park. More than ever, these tools can bring the meaning, value and significance of Yellowstone National Park to audiences who may never have the opportunity to visit Yellowstone in person, but who nonetheless can benefit from and support the park.

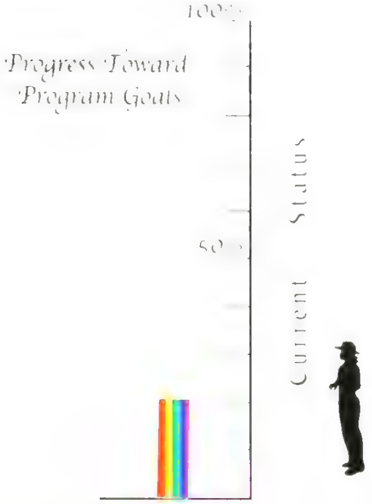
INTERPRETIVE PROGRAM

STEWARDSHIP GOALS

- Professional staff keep abreast of critical issues and use innovative skills and techniques to help the public understand and appreciate the park's primary mission, values, and resources.
- Visitor centers have well-designed and up-to-date exhibits and sufficient staff to operate at convenient locations and times to meet visitor demand.
- Yellowstone provides a broad range of high-quality interpretive and educational programs that enhance visitor experiences while addressing the park's mission of resource conservation.
- Advanced interpretive technologies, publications, and outreach activities are proactively used to inform diverse audiences in and outside the park.
- Interpretive services, products, and facilities promote public safety and resource conservation through both the information provided and the way in which it is presented.

CURRENT STATUS OF RESOURCES/PROGRAM

- Neither the permanent nor seasonal staff receive adequate training to develop the skills needed for their positions.
- Facilities are outdated and too small and/or poorly located to provide the services expected by the public: a fund-raising campaign is underway to construct a new visitor center at Old Faithful through donations.
- Summer campfire programs and walks are well-attended, but few programs are offered during the rest of the year. The popularity of new exhibits and the Junior Ranger program indicate an interest in greater program variety.
- The demand for books, newspapers, web sites, other printed information and off-site programs outstrips the park's ability to provide the variety and quality needed.
- Traditional programs are conducted with minimal impact on other visitors, and convey messages that promote visitor safety and conservation of natural and cultural resources.



1998 FUNDING AND STAFF

Recurring Funds	
[illegible]	$ 1,317,000
[illegible]	$ 114,700
Non Recurring Funds	
[illegible]	$ 134,600
Staff	37.4 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Breaking News

As the world's first national park, Yellowstone occupies a unique place in history and in the hearts and minds of people around the world. In 1988, wildfires burned across the western United States in other parks and forests, but the fires in Yellowstone dominated the headlines because of its name recognition. The intense media attention and simmering debates about how national parks should be managed often put pressure on Yellowstone to respond with immediate answers to a variety of audiences.

PUBLIC AFFAIRS

Information. Yellowstone has a public affairs staff to handle the thousands of requests each year from the media and public for information about current events. Reporters may call to check simple facts and dates, or to ask for detailed information on complex issues and expect that park staff are available to be interviewed on or off camera, sometimes immediately. Park rangers and managers, seldom trained to deal with such publicity, are put on the spot to explain park news in effective sound bites. Two full-time public affairs officers and an administrative assistant respond to many of the media requests for information and interviews, and facilitate hundreds of interviews with the park staff who are responsible for high-visibility programs such as wolf restoration, bison management, and lake trout control.

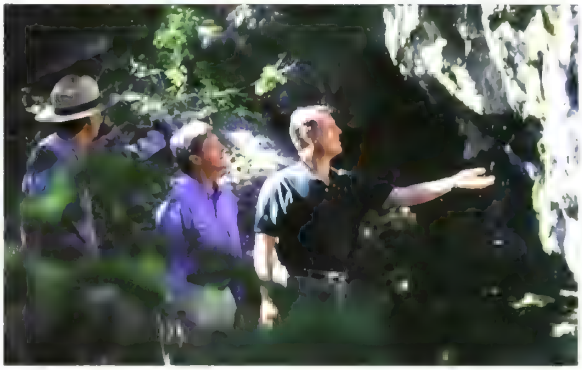
When news is breaking, the public affairs specialists write and issue press releases, call international, regional, or local media with updates; and arrange and conduct press conferences. They provide film footage, slides, and photographs to accompany news stories, and to assist reporters, researchers, and advocacy groups they must often be on call at all hours, seven days a week. They handle 25 to 50 requests made each year under the Freedom of Information Act, which can take hundreds of hours to research and respond to. The demand for information has grown tremendously over the past decade.

Answering other audiences. The public affairs staff works closely with national and state legislators, providing prompt information to respond to constituents' concerns and inform elected officials about park-related issues. They are the park's primary means of keeping other government officials, including those in regional and Washington offices of the NPS, the Department of the Interior, and sister agencies like the U.S. Forest Service, informed on Yellowstone issues. The public affairs staff also make an effort to keep Yellowstone's own staff informed on current events affecting the park, especially employees stationed in remote parts of the park where radio reception is limited and newspapers are not delivered.

Celebrating the World's First National Park

Yellowstone celebrated its 125th anniversary in 1997, the proud "mother" of thousands of parks and reserves that have sprung up in the United States and other countries around the world since 1872. Special events planned and hosted by the public affairs staff included a birthday party and stamp cancellation held at Yellowstone's post office, a visit by General H. Norman Schwarzkopf, and a special radio broadcast of "A Prairie Home Companion," live from Old Faithful by Garrison Keillor. Park staff also produced *A Yellowstone Album*, a commemorative book of historic and previously unpublished photographs; developed a special anniversary poster; and issued weekly news releases about historic happenings.

A highlight of the year-long celebration was a salute to the protectors of Yellowstone—the early civilian superintendents, the U.S. Army, financial contributors, volunteers, and park rangers—attended by a number of dignitaries including Vice President Al Gore and Secretary of the Interior Bruce Babbit.



Tending Yellowstone's Image

In the marketplace. Each year, 250 to 300 private companies request permission to conduct commercial filming or photography in Yellowstone for everything from feature films and television documentaries to advertisements and game shows. The public affairs staff decides which of these requests can be reasonably accommodated and issues 60 to 90 permits annually. They also work to ensure that during the filming activities park resources are not harmed or misrepresented in the results, and that visitors are not inconvenienced. Regulations require that filmmakers cover the costs involved when park staff provide special services such as security, traffic control, or monitoring to prevent resource impacts. In 1998 Yellowstone recovered $69,360 in costs associated with commercial filming activities.

While Yellowstone has traditionally shied away from marketing itself, it has become a huge attraction to travelers from around the world and critical to the economic welfare of the region. As a result, park managers need representation when plans for promotion and growth of tourism in greater Yellowstone are discussed. Public affairs staff attend chamber of commerce meetings and special events in surrounding communities to facilitate cooperation between private and public interests affecting Yellowstone's resources and visitors.

Special events and visitors. The superintendent and public affairs staff host heads of state and other visiting dignitaries, park managers, and 30 to 40 international delegations each year, arranging foreign language interpreters and providing special tours and interviews with park managers and scientists.

Program Needs

Addressing the media's continual "need to know" takes up at least 70 percent of the public affairs specialists' time, while the continual stream of other calls to provide timely facts, host special events, greet and assist national and international guests, and provide other visitor services occupies the rest. With added staff the park could be more proactive when Yellowstone issues hit the news.

PUBLIC AFFAIRS

STEWARDSHIP GOALS

Professional public affairs staff maintain proactive efforts to provide the media, visiting dignitaries, and other audiences with timely and accurate information, photo images, and other assistance to enhance appreciation of Yellowstone.

Staff plan and conduct special events to support the conservation and education objectives of the park and surrounding ecosystem; they also represent the park's interests in efforts by other groups to promote tourism in the area.

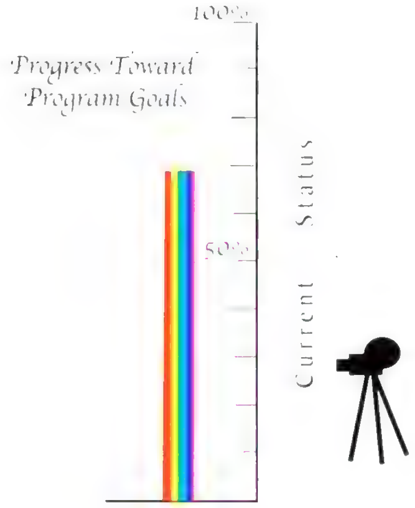
Media activities, commercial filming, and other special events are conducted safely and with minimal impact on park resources and other visitors' enjoyment of the park.

CURRENT STATE OF PROGRAM

Most media contacts are reactive rather than proactive in nature. Public affairs specialists prepare news releases and handle requests for interviews, information, photo images, and other assistance from news media and other groups and individuals in a timely manner.

Staff have limited contact with neighboring communities, tourism officials, and chambers of commerce regarding promotion of park use and its relationship to Yellowstone's mission.

Media activities, commercial filming projects, and special events are conducted safely with well-coordinated logistics and staff to protect resources and avoid disrupting other visitors.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone NP Base Budget	$ 178,700
Cost Recovery/Special Use Fees	$ 69,900
Staff	4.0 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Accommodating Visitors

When Yellowstone was established in 1872, no tourist services of any kind existed in the park, but it was soon recognized that such amenities would be needed to make Yellowstone a place people want to visit. As the first NPS Director, Stephen Mather, pointed out, "Scenery is a hollow enjoyment to a tourist who sets out in the morning after an indigestible breakfast and a fitful sleep on an impossible bed."

Among Yellowstone's first visitor attractions were its grand hotels—the National Hotel (1883), the Fountain Hotel (1891), the Lake Hotel (1891), the Old Faithful Inn (1904), and the Canyon Hotel (1910). Accommodations in the Old Faithful Inn and the Lake Hotel are more in demand than ever, while the other hotels have succumbed to the ravages of time and been replaced with less ambitious architectural structures. Although some visitors would prefer a totally undeveloped landscape, the park's historic hotels have a constituency as devoted as that for wildlife or geysers.

The consensus on what constitutes necessary or appropriate visitor amenities has changed over time, with an overall trend in the last 30 years toward elimination of activities that do not directly contribute to the visitor's enjoyment of the park's natural or cultural features. Consequently, the type and quantity of visitor conveniences and activities available today reflect both the park's traditions and what the long line of park administrators has been able to build or eliminate in a sometimes contentious political climate.

Although an application to build an elevator to the foot of the Grand Canyon of the Yellowstone was denied in the 1880s largely because it would be "a very unsightly structure," many small and often unattractive buildings were put on the canyon rim and across the park landscape prior to the 1920s. But some magnificent structures were also built; the third Canyon Hotel was considered the equal of the Old Faithful Inn when it was built in 1910.Yet due to its construction on unstable soils and a trend toward modern architecture in the 1960s, the Canyon Hotel fell into disrepair and was removed. Canyon Village, which was constructed in the early 1960s as part of a broad effort to improve visitor facilities throughout the national park system, was widely regarded as too "suburban" in appearance by the 1980s. In the 1990s, most new park structures were returning to the more rustic look of the 1930s in their design.

In keeping with Yellowstone's Master Plan, visitor accommodations and services have been consolidated into areas at Canyon, Lake, Grant Village, Old Faithful, Mammoth, and Tower-Roosevelt, and Fishing Bridge/Bridge Bay. However, these areas can become congested during the peak season, and give an impression of near-urban development in contrast to the park's natural aesthetic values.

THE ROLE OF CONCESSIONERS

Yellowstone has four primary contracts with concessioners to provide food and lodging, merchandise, service stations, guided tours, and medical care. More than 100 other businesses have contracts or permits to offer activities such as outfitted backcountry trips, guided fishing expeditions, guided snowmobile and snowcoach tours, guided photo safaris, cross-country ski trips, and research expeditions with paying participants. All enterprises authorized to conduct business in the park are required to pay some type of annual fee; the four major concessioners are also responsible for all maintenance of and improvements to the government-owned facilities assigned to them. The services that concessioners provide and the rates they charge are subject to approval by the park, and all commercial operations are subject to close monitoring to ensure that visitors receive quality services with minimal effect on park resources and other visitors.

The concessioners employ about 3,500 seasonal staff each year. Because of their large number and the nature of their work, these employees have far more contact with most park visitors than do NPS staff. They receive training from both their employers and NPS staff about Yellowstone's mission and resources.

LODGING AND RESTAURANTS

During the summer, overnight lodging is provided at six locations throughout the park; rates in 1998 ranged from rustic cabins at Roosevelt for $35 a night to a very nice room at the historic Yellowstone Lake Hotel for more than $135. The Mammoth Hot Springs Hotel and Old Faithful Snow Lodge are also open from mid-December until early March. In or near the hotels, meals are available at snack shops and restaurants, but more food service facilities are needed to accommodate the large number of visitors without long waits.

The Care and Feeding of Visitors

During 1998 Amfac's staff of 125 year-round and 2,600 seasonal employees accommodated guests who:

- spent 569,000 nights in 2,188 hotel rooms and cabins; and
- ate 1,916,000 meals in 16 food service facilities —dining rooms, snack shops, fast food counters, cafeterias, and the popular Roosevelt Cookout reached by horseback or stagecoach ride into Pleasant Valley.

The three other major concessioners employ 50 year-round and 900 seasonal employees. Most concession employees live in housing provided for them within the park. (See "Employee Housing," page 7–24.)

Under a 10-year contract that will expire in 2001, Amfac Parks and Resorts manages all of the park's overnight guest lodging (2,188 units), restaurants, and hotel gift shops, as well as four campgrounds, an RV park, three corrals that offer horseback riding, the Bridge Bay marina (for fishing and sightseeing tours and dock and boat rentals) summer bus tours, and winter transportation via snowcoach. Amfac is currently one of the largest concessioners in the NPS, with contracts in seven national parks.

To conduct its operations, Amfac is assigned the use of nearly 800 government-owned buildings. Most of the lodging facilities are historic structures that are in need of constant preservation maintenance as well as updating to current codes for safety, public health,and accessibility. Each year of its contract, Amfac is required to reinvest 10 percent of the current year's gross in new construction and capital improvements to these buildings, and 10 percent of the prior year's gross receipts for cyclic maintenance of the buildings and equipment. In 1998, when its gross revenues in Yellowstone were about $46.5 million, Amfac returned $9.6 million to the park in cyclic maintenance and improvements.

Amfac's current contract has also required them to make an additional $18.2 million investment for the following improvements by 2001:

- $8 million for restoration of the Old Faithful Inn and construction of an employee dorm;
- $3 million to upgrade computers for guest reservations and improve telecommunications systems;
- $3.5 million to replace lodging and install a new boiler at Canyon Village;
- $0.6 million for infrastructure improvements in the campgrounds such as registration offices, reservation systems, and bathroom facilities; and
- $3.1 million toward replacement of the 100-room Old Faithful Snow Lodge.

CAMPGROUNDS

Camping in Yellowstone has long been a matter of preference or economy—an activity undertaken by visitors wanting to get closer to nature as well as those needing inexpensive accommodations. The first efforts to establish permanent tent camps were resisted because of fears that they would be, in the superintendent's words, "a desecration to the park," and the struggle between practicality and preservation of the natural setting has continued in various forms to this day.

In addition to the question of whether the park could reasonably accommodate more campsites, controversies have arisen regarding campground locations. Although the first camping was done wherever people most wanted to be—right next to the geyser basins and at the edge of Yellowstone Lake—as time passed it was found that the tents and trailers detracted from scenic views and compacted the vegetation. At places like Fishing Bridge and Old Faithful, where the locations favored by campers were also attractive to bears, the campgrounds had to be removed. But the park intends to maintain campgrounds at appropriate locations for these visitors who want to camp.

Most Yellowstone campgrounds are in old-growth lodgepole pine forests where wind-thrown trees have caused property damage and can pose a constant risk to human safety. Park staff have been working with Amfac Parks and Resorts to identify and remove these hazard trees before they fall. The longer-range goal is to revegetate the campgrounds with young, uneven-aged trees that are more resistant to insect and diseases, provide better screening between campsites, are less subject to windthrow, and cause less damage when they do fall. Of the campgrounds located in lodgepole forests, only Indian Creek, and to a lesser extent Canyon and Grant Village, currently approach this condition; Bridge Bay in particular lacks vegetative screening between some of its sites.

Campground use. About 22 percent of park visitors spend at least one night at the Fishing Bridge RV Park or one of the 11 campgrounds which provide a total of 2,201 sites. The campgrounds range in size from 29 to 429 sites, with daily fees in 1998 ranging from $10 (campgrounds without flush toilets) to $24 (sites with RV hook-ups). Only the Mammoth Campground is open all year; the others operate from between May 1 and November 1. In 1998, campers spent a total of more than 700,000 nights in park campgrounds, most of them typically staying for two or three nights in the park.

The Fishing Bridge RV Park and the four largest campgrounds (Canyon, Grant, Madison, and Bridge Bay) are managed by Amfac Parks and Resorts, which is required by its contract to reinvest 20 percent of its gross receipts from the campgrounds in campground improvements. Amfac uses a computerized system in which visitors can reserve a site in advance by mail or phone; all of its campgrounds are fully booked months in advance for the peak summer period. The other seven campgrounds, which are main-tained by the National Park Service, are available on a first-come, first-served basis.

Amenities. Although visitors generally accept the idea that camping in a national park must be confined to areas suitable for that purpose, some object to the lack of amenities. None of the campgrounds has hot water, and showers and laundry facilities are either inconveniently located or non-existent. Only the RV park has water, sewer and electrical hookups; four other campgrounds have facilities for RVs to dump their waste; however, they are in a serious state of deterioration and must be replaced. Sites at most campgrounds are in need of leveling and better screening with vegetation. Tent pads need to be developed and parking spaces should be more clearly defined. However, the park expects to keep the five smallest campgrounds "undeveloped," without flush toilets or showers.

STORES AND SERVICE STATIONS

Food, beverages, and merchandise (including sporting goods, clothing, non-prescription drugs, souvenirs, books, postcards, and film) are sold in 13 stores under a 30-year contract with Hamilton Stores Inc. (HSI) that expires in 2000.

HSI, a family owned business that has operated in the park since 1915, originally built or purchased all of the stores and retains a compensable interest in them. They are also a joint owner with NPS of Yellowstone Park Service Stations (YPSS), which includes seven service stations, four of which provide vehicle towing and repair service. The service stations are jointly operated by HSI and Amfac, which manages the government's interest.

From their gross revenues plus their share of service station profits, each year HSI is required to pay 2.75 percent to the U.S. Treasury in franchise fees and to invest 0.5 percent in improvements to the government-owned areas that surround the stores, including landscaping and accessibility. In 1998, when HSI gross revenues were nearly $23 million, they paid about $660,000 to the U.S. Treasury in franchise and building use fees, and returned $115,000 to Yellowstone in park improvements.

MEDICAL CARE

The medical clinics at Mammoth Hot Springs and Old Faithful and the hospital at Yellowstone Lake are operated under a contract with Yellowstone Park Medical Services (YPMS), which is affiliated with the West Park Hospital in Cody, Wyoming. The Mammoth Clinic operates year round, the Old Faithful Clinic and Lake Hospital are open from May to September, and the Old Faithful Clinic has very limited hours during the winter. West Park Hospital serves as the medical sponsor for the park's emergency medical services and works closely with the NPS ranger staff to ensure proper training and certification.

Although YPMS pays no franchise fee, during their current 10-year contract which will expire in 2002, they are required to:

- make an annual payment for capital improvements and cyclic maintenance for the park facilities they use ($43,290 in 1998);

- invest $851,500 in medical facilities improvements and the purchase ambulances and other equipment; and

- assist in training the park's emergency medical staff.

Ranger medical services. The park ranger staff includes certified emergency medical technicians, first responders, park medics, and paramedics (see "Protecting Visitors," page 6–52). In addition to their other responsibilities, they are qualified to provide basic or advanced life support care to sick or injured people, and ambulance or air ambulance transports to hospitals outside the park. Two oversnow emergency transport vehicles were available in the park for the first time during the winter of 1996–97.

Growing visitation, longer seasons, and higher public expectations have placed additional demands on the medical staff and services. Because of traffic congestion and rough roads, rangers must increasingly rely on air ambulances for emergency response and rapid transport of seriously injured patients to hospitals outside the park.

The new ranger station and clinic that was completed at Old Faithful in 1995 has greatly improved the quality of emergency service available to visitors in the park's busiest location.

WORKING WITH PARK CONCESSIONERS

The concessioners' responsibility for maintenance of and improvements to the facilities they use has saved the government millions of dollars over the years. In addition to funding the preservation of historic buildings and the construction of new lodgings, the concessions contracts have helped pay for new fire alarm systems, the replacement of underground fuel tanks to meet EPA regulations, and renovations to comply with the Americans with Disabilities Act.

Along with the large sums invested in the park each year by the four major concessioners (Amfac Parks and Resorts, Hamilton Stores, Inc., Yellowstone Park Service Stations, and Yellowstone Park Medical Services), the smaller businesses that provide tourist services in the park are also required to give something back. The 26 operators of guided snowmobile and snowcoach tours, whose 1997–98 revenues totaled $590,870, paid $23,635 in annual revenue-based fees that went toward improvement of government-owned facilities associated with winter operations. The 49 outfitters who are authorized to conduct guided saddle/pack trips into the backcountry, whose 1997 revenues totaled $692,392, paid annual fees of $28,658 that went to the U.S. Treasury. Another 127 businesses that hold permits for a variety of commercial ventures such as guided fishing, photo safaris, cross-country skiing, and hiking trips paid approximately $26,000 in fees to the park.

Is the Doctor In?

Yellowstone's first medical facility was a small wooden cabin staffed by the Army medical corps, established in 1886 at Camp Sheridan near the Mammoth Terraces. The first hospital was set up in 1887 when Louis C. Pettit, a civilian doctor, arrived. In 1894, the cavalry built Army Hospital No. 14 at its newly relocated post, Fort Yellowstone. This ten-bed facility provided medical services until a new hospital was built in 1891 next to the Mammoth Chapel; it provided most of the area's medical services for the next 40 years. Many residents of Gardiner, Montana, entered the world at Mammoth Hospital. It was staffed primarily with civilian physicians from Livingston, Montana, who in the early 1920s took over the contract for medical services in the park. Dr. Alfred Lueck operated the hospital from 1920 until 1974, was its chief surgeon from 1945 until 1963, and founded Yellowstone Park Medical Services.

During the Hebgen Lake earthquake in 1959, many park buildings, including the hospital, were damaged. In 1963, Mammoth Hospital was torn down and replaced with an outpatient clinic which is still staffed by a physician who operates a year-round family practice for employees, visitors, and local residents. A more centrally located hospital was established at Yellowstone Lake, where employees and visitors could receive a full range of hospital services, including surgery. With the advent of "Life Flight" helicopter services, surgical services have been phased out, but health-care professionals from across the country still rotate through one of America's favorite vacation spots, providing medical care to approximately 6,000 patients from May to September.

Contract administration. Eight park employees, including a U.S. Public Health Service inspector, are responsible for working with the concessioners to ensure that the park's objectives are met. Each year concessions staff conduct about 275 formal and informal inspections of concession-operated facilities, identify needed cyclic maintenance and capital improvement projects, and take follow-up action when necessary to ensure correction of any problems noted. Prior to their approval, all construction and renovation designs are reviewed by the concessions staff and checked for compliance with NEPA and the Historic Preservation Act; the staff also audits all expenditures of funds set aside by concessioners for park improvements and checks for comparability with rates charged in the private sector.

Planning for the future. Although the park's lodgings and campgrounds have often been filled to capacity during the peak season since the 1960s, the past consensus has been that adding many more hotel rooms or campsites would not contribute to the overall quality of the Yellowstone experience and would push the impact of human activity on the park's resources beyond an acceptable level.

Looking toward the future, the park staff is preparing a commercial services management plan to outline standards for services and activities that are considered necessary for the visitor to have a quality experience yet are consistent with the park's mission. Once finalized, the objectives of this plan, including improvements in guest facilities and infrastructure, will be implemented through new concession contracts as the existing contracts expire.

Concessions Management Improvement Act of 1998. This new law will make significant changes in Yellowstone's financial relationship with its concessioners. As new contracts go into effect (Amfac's expires in 2001, and Hamilton Stores, Inc. in 2000), they will be subject to these provisions:

- The application of "leasehold surrender interest" will enable concessionaires to gain a financial interest in facilities to which they make capital improvements; the interest will appreciate according to the consumer price index. This is of serious concern in Yellowstone, where the government now owns almost all the buildings.

- All fees paid by concessioners at national parks will be deposited in the U.S. Treasury. Twenty percent of each fee will go into a general account to be used as the Director of the National Park Service sees fit; the remaining 80 percent can be used by the park where the fee was collected for providing visitor services and certain resource management operations. Currently at Yellowstone, all Amfac fees remain in the park to maintain government-owned facilities assigned to the concessioner; this provided $9.6 million in 1998. Not only will Yellowstone lose 20 percent of this money, but use of fees deposited in the Treasury will not earn interest and must be managed through the government contracting process.

Program Needs

- Capital improvements. Even though the existing concession contracts provide substantial sums each year for cyclic maintenance and capital improvements, the large number of buildings involved makes it impossible to bring them all up to a satisfactory standard and keep them there. The estimated backlog of needed capital improvements and cyclic maintenance is $500 million. This includes renovation of warehouses in Gardiner, Montana; restoration of the columns at Lake Yellowstone Hotel; total renovation of the Mammoth Hot Springs hotel and guest cabins; reconstruction of Bridge Bay Marina docks/slips; and construction of support facilities such as employee housing and dining facilities.

- Better camping conditions. Most of the park's campgrounds require improvements such as:

  - ➡ major revegetation efforts and campground redesign to reduce crowding and increase privacy;
  - ➡ installation or upgrades of comfort stations, hot showers, nearby laundries, dump stations, and sewage disposal systems;
  - ➡ more accessible camping sites and restroom facilities; and
  - ➡ repair, replacement, or installation of picnic tables, food storage boxes, fire grates, bumper logs, and tent pads at many sites.

- Additional staff. The additional workload created by the new Concessions Management Improvement Act, which puts the administrative burden of contracting, procurement, construction oversight, and tracking of leasehold surrender interest on the park rather than the concessioner, will require a larger staff to handle.

CONCESSIONS MANAGEMENT

STEWARDSHIP GOALS

Yellowstone visitors are satisfied with the availability, accessibility, diversity, and quality of commercial facilities, services, and activities provided in the park.

Government-owned facilities and equipment are maintained to the highest standards, and the historic integrity of structures is preserved.

Management of contracts and capital accounts benefits the taxpayer and park visitors; the activities offered and the uses of park facilities are compatible with protection of natural and cultural resources.

Basic and emergency public safety and health needs are provided for park visitors and employees.

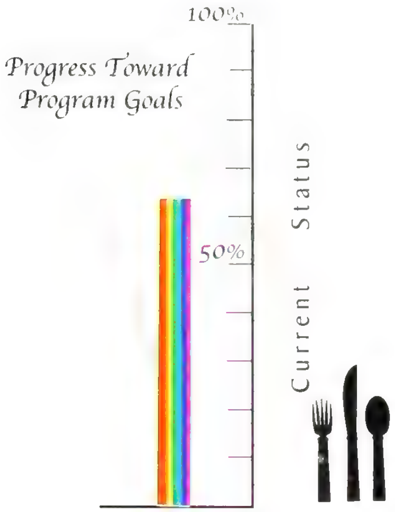
CURRENT STATE OF RESOURCES/PROGRAMS

Visitors are generally pleased with the range of services available, but more food service and budget lodgings are needed; campgrounds and infrastructure need major renovations.

Concessioner services, facilities, and equipment are regularly evaluated to identify deficiencies and set priorities for correction, but funding is inadequate to meet needs. All projects are carefully planned to preserve natural and cultural resources.

Amfac's contract has reinvested about $130 million in park facilities since 1979; close monitoring ensures protection of natural and cultural resources. New legislation could significantly reduce the funds available for these projects.

Emergency medical services are provided by concessioner-provided medical staff and trained park rangers as needed; the public health inspector position is only partially funded.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 435,190
Cost Recovery/Special Use Fees	$ 26,000
Non Recurring Funds	
One-time Projects	$ 27,500
Staff	9.0 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Backcountry Use

Despite the well known attachment of tourists to their cars, vans, and RV's, about 75 percent of Yellowstone's visitors do get out to walk along a park trail for a better view of the scenery and wildlife. A far smaller portion, less than 10 percent, go into the backcountry to experience a sense of solitude and distance from more populated landscapes.

Although the term has no official definition, more than 95 percent of the park is considered "backcountry," or generally undeveloped land away from park roads, hotels, stores, and campgrounds. In compliance with the Wilderness Act, a study completed for Yellowstone in 1972 recommended that more than two million acres of the park be formally designated as wilderness. Congress has not acted on this proposal, but areas recommended for wilderness status are managed so as not to preclude such a designation in the future. The backcountry remains undeveloped except for a network of 38 patrol cabins, five fire lookouts, and a relatively sparse trail system.

About 20 percent of the hikers found on park trails during the summer use a backcountry campsite; the others are just out for the day. Most trail use originates from within the park although some groups, primarily horse parties, enter on trails from adjacent national forests. To protect the soils and vegetation, overnight stock use is not permitted until July, and restricted to certain campsites, but only a few trails are off-limits to stock. To prevent resource damage and conflicts with other users, bicycles are not permitted on any backcountry trails or off-trail. Cyclists can use service roads not open to vehicle traffic, abandoned road beds, and some frontcountry developed area trails.

TRENDS IN BACKCOUNTRY USE

During 1998, backcountry campsites were used by 21,087 visitors for an average of 1.9 nights, and a total of 45,612 "people-use nights." Similar to trends seen at other western parks such as Rocky Mountain and Glacier, after peaking in 1977 at 55,391 people-use nights, Yellowstone backcountry use had dropped to 25,188 by 1988 (when fires closed much of the area), but quickly rebounded. Since 1993, backcountry use has leveled off above 45,000 people-use nights. About 18 percent of these backcountry users are traveling with boats and 8.5 percent on or with horses; the remainder are backpackers. Little reliable data exist on the numbers or trends in day use.

The amount of backcountry use associated with commercial outfitters rather than by independent travelers has risen sharply during the 1990s and now accounts for about 18 percent of all backcountry use.

MINIMUM IMPACT, MAXIMUM ENJOYMENT

The park's backcountry management goal is to accommodate wilderness use in ways that provide the highest possible value to the visitor with the minimum possible impact on the park's natural features and cultural sites. The frequency and design of trail signs and markers, bridges, and campsite facilities, and the use of mechanized equipment for trail construction, maintenance, and emergencies can all affect visitors' backcountry experiences, and the right balance must be maintained between adequacy of assistance and intrusiveness. A *Backcountry Management Plan* has been prepared to guide human activities into the wild lands that make up most of the park acreage. But little staff time can be spent monitoring the effects of use on cultural and natural resources beyond the roadways.

Risk and rescue. Wilderness terrain, mountain storms, and wildlife encounters increase the risks to visitor safety in the backcountry. Park staff are trained and equipped to respond to visitor requests for assistance in any season. Park personnel perform many searches for lost visitors, and rescue those injured in the backcountry. Search-and-rescue expenses range from $45,000 to $65,000 each year, and these operations affect the peace and quiet of other wilderness users. (See "Search and Rescue," page 6–53.)

Reports of bear activity may lead to the posting of warning messages and cause temporary trail or campsite closures as visitors' desire for access is balanced against the need to protect them and the bears. During spring runoff, some trails are closed due to dangerous river crossings; even during lower water levels, river fords of the Lamar, Yellowstone, and Snake pose cold, swift challenges to backpackers. Boaters may underestimate the speed at which the winds can turn Yellowstone, Lewis, and Shoshone lakes from glass to whitecaps, and skiers risk bitter temperatures, blizzards, and avalanches. While many backcountry travelers seek to experience nature on its own terms, others seek more contact with those who know the territory prior to embarking on their own wilderness journey.

Workers in the wilderness. A resource specialist spends about one third of his time overseeing wilderness use. In addition to the headquarters backcountry office with two full time and several seasonal employees, during the peak season 10 backcountry offices are distributed throughout the park, staffed by seasonal rangers and volunteers who help plan trips and issue per-mits for backcountry use. Patrolling rangers alert these offices of trail conditions and safety hazards, monitor use, clean campsites and toilets, clear trails of trees that fall after windstorms, assist wilderness visitors, and protect park resources. Especially in autumn, boundary patrols are increased to prevent accidental or intentional encroachment by big game hunters. But budget constraints have reduced the number of seasonal backcountry rangers from 17 to 10 since 1988—leaving each ranger responsible for an average of 200,000 acres and 100 miles of trail.

Major trail construction is assigned to seasonal maintenance crews who work with the rangers to reroute trails when necessary and design drainage structures and bog bridges around areas prone to slumping, wet conditions, or other erosion. Some assistance has been provided by the Student Conservation Association and the Young Adult Conservation Corps, but in recent years fewer crews have been available for backcountry trail work, and the park has fallen behind in cyclic trail maintenance.

Maintaining history. U.S. Army cavalrymen stationed in the park constructed a network of simple log structures 10 to 15 miles apart—a day's travel on horseback or skis. Today rangers and trail crews on backcountry duty can find shelter and rations at 38 such patrol cabins, some of which date back to 1910. An evaluation of the historic importance of many of these cabins is underway, but much maintenance work must be completed to stabilize them for continued use. (See "Historic Structures," page 4–10.)

RECENT ACCOMPLISHMENTS

Backcountry zones. To help manage visitor use, Yellowstone's backcountry has been divided into three zones:

- *The Threshold Zone* adjoins roads and developed areas where most visitor use is concentrated. It contains easily accessed, well-marked, short-distance trails that receive moderate to high use. Trees, rocks, and other impediments may be altered or removed to permit access by a greater variety of visitors.

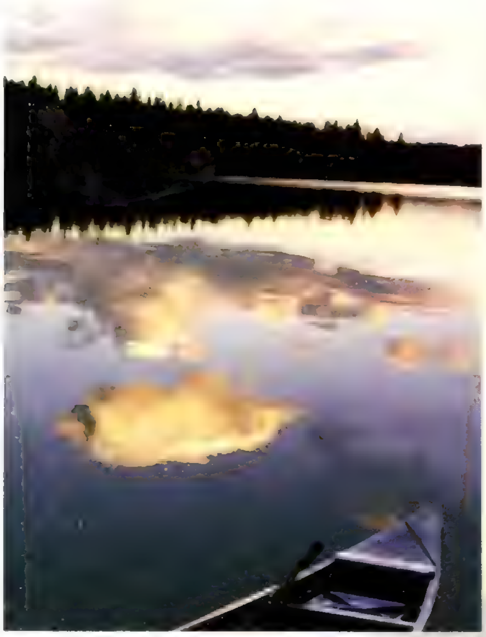
- *The Backcountry Zone* includes all trails and campsites outside of developed and threshold areas. These trails range from moderately challenging to more challenging, and have the minimum marking necessary to guide users, but they are generally well-maintained and cleared for stock travel. They are classified as low, moderate, or high use, reflecting the level of day, overnight, and stock use. Except in special circumstances, they will not be widened, hardened, or bridged to improve accessibility beyond the trail standards.

- *The Pristine Zone* includes any area that has no maintained trails.

Hiking Through History

Long before Yellowstone was inhabited by Euroamericans, American Indians came in search of the game that were plentiful in the area. Many of the Indians' trails that evolved from centuries of use continue to be traveled on today—the easiest paths across rivers and through mountain passes. The most important of these became known as the Great Bannock Trail, named for the Bannock Indians of southeastern Idaho. For about 40 years after bison were eliminated from the Snake River plains in the 1840s, the Bannocks made an annual trek to hunt those remaining in the mountains and the Bighorn Basin, crossing the northern part of what became Yellowstone National Park.

The most historically significant trail in the park was blazed in 1877, when some 750 Nez Perce Indians, led by a group of warriors who refused to settle on a small reservation in Idaho, fled east in hope of joining their Crow allies on the plains. As they crossed Yellowstone's central plateau on foot and horseback, the U.S. 7th Cavalry followed in their pursuit, cutting trees and dragging wagons along what is now called the Mary Mountain Trail. The total distance of more than 1,100 miles covered by the Nez Perce, before their surrender in Montana's Bear Paw Mountains three and a half months later, has been designated as the Nez Perce National Historic Trail. Information is available to illustrate the routes through the park and explain significant sites along the way.



Solitude. Yellowstone's *Backcountry Management Plan* does not set overall use limits for any trails or zones. Information about use levels and the likelihood of contacts with other parties is given to hikers to help them make their own choices and to help park managers set work priorities and standards for trail maintenance. Motorized access is prohibited except in case of life-threatening emergencies, and park staff may use motorized equipment only if a necessary task cannot be completed without it. Such restrictions mean that it takes more time and labor to clear and maintain trails, restore patrol cabins, and service telecommunications and resource monitoring equipment. However, wilderness values are given priority over efficiency in the backcountry, unless using technology in a quick and sensitive manner would reduce the impact to park resources.

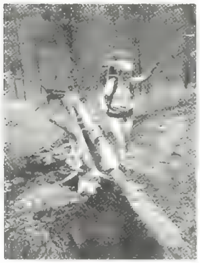
While some parks have serious resource concerns and visitor conflicts over the number and routing of scenic overflights, this intrusion has so far been relatively infrequent in Yellowstone. During 1999, 300 overflights were reported in the park, up from 220 in 1995. Although most of these flights are conducted as part of authorized research projects, the goal is to minimize the adverse effects of overflights on park visitors and resources. Yellowstone is also seeking to limit commercial "flight seeing" and other activities that detract from wilderness quiet.

Backcountry information. A backcountry trip planner provides information on the permit and reservation system, stock use, advice on traveling in bear country, and a campsite map. Brochures are also available on backcountry etiquette and safety, horse use, and backcountry boating. The stations where nearly all permit holders check in have videotapes on backcountry safety that each permit holder is required to see and other party members are encouraged to watch.

Occasionally the park reroutes, renames, or abandons trails, but it takes time for these changes to appear on maps or in printed guidebooks. Information at backcountry offices and trailheads needs to be standardized with regard to safety messages and regulations and should address route-specific information where appropriate. New displays have been planned for major trailheads to provide safety tips and resource information, but construction and installation have been delayed due to reduced funding.

Trails. The present number and distribution of trails appears to be adequate to meet present and future demands, and off-trail hiking is permitted in most areas for those who want a more challenging experience. Trail conditions vary, but progress has been made in better marking of trailheads, and signing and facilities have evolved to better meet hikers' needs and preferences.

The park is crossed by two long-distance trails, the Continental Divide National Scenic Trail and the Nez Perce Historic Trail. Past problems with finding the trails and locating suitable campsites at a reasonable day's interval have been addressed in the park's *Backcountry Management Plan* and through better trip planning information.



Campsites. Backcountry camping has generally been limited to designated sites since 1973, primarily to protect bears and campers from each other, but also to minimize the visual intrusions of human activity and prevent natural resource impacts such as campfire scars. In poor winter weather, campers are given greater latitude in choosing a campsite. Nearly all of the 287 designated backcountry sites have storage poles so that food and other attractants can be secured away from bears. A few campsites have been designed to meet accessibility standards. Each site has restrictions on group size (from 4 to 20 people), length of stay, and whether campfires or stock are permitted. Monitoring is done to protect plants from current stock-grazing levels, but no baseline inventory has been prepared to help detect changes in species composition over time as a result of stock grazing.

Advance reservations. To take some of the uncertainty out of visitors' backcountry camping plans, some of the sites are available for reservation in advance, by mail, or in person for a $15 fee. This fee money, which totalled $24,000 in 1998, is being used to operate the computerized reservation system. No fee is charged for backcountry sites reserved less than 48 hours in advance. Although campsites in a few popular areas such as Shoshone Lake and Slough Creek sometimes fill before all interested parties have been accommodated, Yellowstone's backcountry usually has a site available to satisfy every camper. Computerization has provided easier access to permit information across the park and reduced the time it takes to issue a permit, but the number of telephone calls to the headquarters' backcountry office increased by 40 percent after the reservation system was introduced in 1995.

Commercial outfitters. The use of outfitters and guides has become increasingly popular among visitors, and offers some advantages from a resource management standpoint. Professional outfitters and guides tend to be better informed than independent travelers are about minimum-impact camping and better motivated to follow the rules, since they want the quality of their favorite routes maintained for future clients. But the number of outfitters is limited to ensure a fair balance between private and commercial use of backcountry parties trails and campsites. There are 29 outfitters that are authorized to conduct trips for backpackers, and 49 who are permitted to use pack stock or horses for riding; these permits may be revoked if park rules are violated. All of the outfitters are required to pay an annual fee and to pass a certification program to help ensure the quality and safety of the visitor's experience.

Program Needs

- IMPROVE TRAIL INFORMATION. Park staff need to work with trail guide authors and trail map companies to update trail names, locations, and conditions in publications.

- RESTORE BACKCOUNTRY CABINS. In 1983 a historical architect evaluated the preservation maintenance needs of 11 historic patrol cabins, and several have since been restored. But most still require work to restore foundations, rafters, and rotting sill and wall logs; replace floors and roofs; and repair windows and doors damaged by wild animals, weather, and general wear. Priority has been given to the cabins at Peale Island and Clear Creek, on Yellowstone Lake, and the Fox Creek and Harebell cabins in the park's south district—each of which is estimated to cost up to $50,000 in labor and materials to restore.

- IMPROVE ACCESSIBILITY. Persons with hearing, sight, or other limitations should receive detailed information on trail conditions and the risks they may encounter so that they can determine for themselves whether they would be capable of reaching a destination or campsite. On trails where the natural topography will allow it, some backcountry sites will be modified to accommodate wheelchair users.

- RESTORE BACKCOUNTRY STAFF. Regular trail maintenance crews are needed to maintain an average of 200 miles of trail each year by replacing water bars and other drainage structures, repairing washouts and restoring tread, and replacing needed creek and bog bridges. Additional monies and crews are needed for trail clearing every spring, which has become a larger chore since the 1988 forest fires left hundreds of thousands of trees more likely to "wind-throw" across trails during each long Yellowstone winter.

  Additional rangers are needed to provide resource protection and visitor assistance in the backcountry. More staff are also needed to keep the permit stations open at locations and times convenient to park visitors.

- MONITORING PROGRAM. Park staff need to be able to spend more time and use more sophisticated techniques to monitor day use and assess the condition of trails, campsites, and stock-grazing sites. The resulting information could be used to develop better long-range management strategies to protect wilderness resources and enhance visitor experiences.

- AIRCRAFT OVERFLIGHTS. In order to preserve the solitude that can be experienced in the backcountry of Yellowstone and other wilderness parks, legislative protection is needed to restrict the number and type of aircraft allowed to fly through park airspace.

BACKCOUNTRY MANAGEMENT

STEWARDSHIP GOALS

Trained staff perform regular backcountry patrols to make visitor contacts, conduct searches and rescues when necessary, and monitor and protect resources and wilderness values while accommodating reasonable uses. Backcountry cabins are well maintained and sustainable operational practices have been adopted.

Staff proactively inform and educate the public about opportunities for backcountry experiences, resources, risks, and minimum-impact practices through up-to-date exhibits, programs, printed information, and personal contacts.

Visitors can receive backcountry use permits and orientation in a timely manner at many convenient locations during high-use hours and seasons.

Sufficient and well-trained trail crews complete cyclic trail clearing, maintenance, and reconstruction with minimal adverse impact on visitor experiences and park resources.

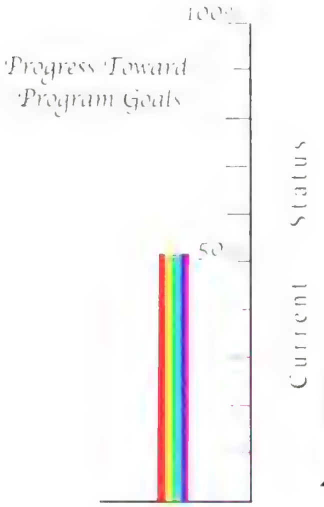
CURRENT STATE OF RESOURCES/PROGRAMS

Backcountry opportunities are plentiful and generally provide satisfactory visitor experiences; but staff struggle to maintain training and regular backcountry patrols for safety, resource monitoring, and visitor contact.

A backcountry trip planner and maps provide information for those requesting it on-site or in advance, but proactive orientation and interpretive exhibits, programs, and minimum-impact outreach efforts are limited.

Backcountry offices are often inconveniently located, too small, and not sufficiently staffed to operate at needed hours and locations.

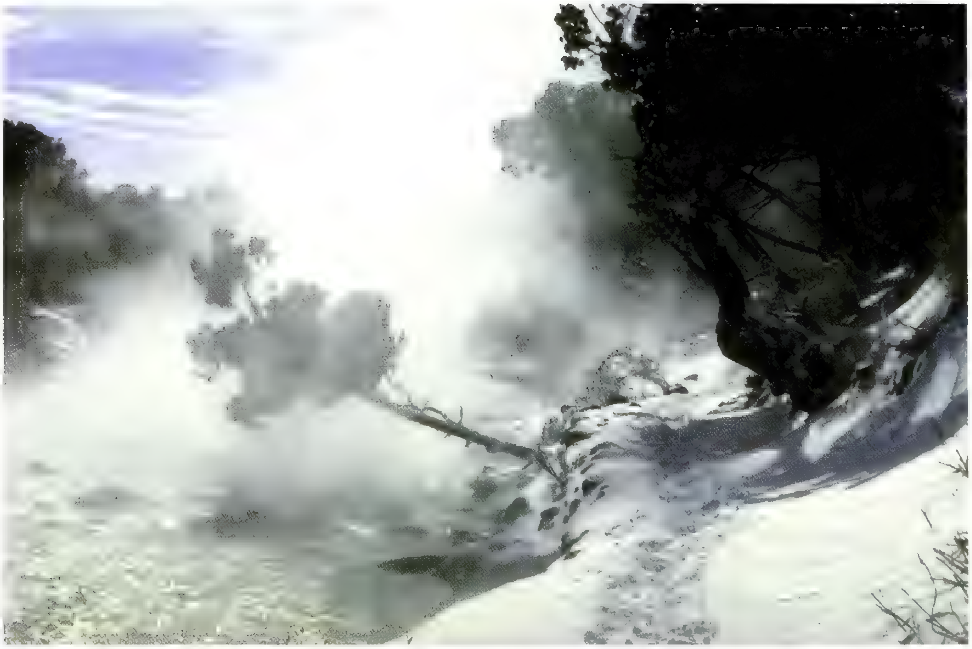
Backcountry management plans outline desired conditions for trails, campsites, stock grazing sites, and park resources, but staff are limited in time and funds available to meet the standards.


Progress Toward Program Goals

1998 FUNDING AND STAFF

Recurring Funds	
[illegible]	$ 983,000
[illegible]	$ 43,454
Staff	16.24 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship level will be identified in the park business plan.



Winter Use

Winter presents challenges to both visitors and park managers. With snow piled six feet high along the road, it can be disconcerting to round a bend in an open snowmobile and find a belligerent half-ton animal who does not want to yield the right-of-way. But if it is an unsettling experience for the visitor, it is even more so for the moose or bison, whose bolting may waste precious calories needed to sustain the animal until spring.

When Yellowstone was established no one foresaw that a frigid, snow-covered landscape would one day be enticing to visitors. While the road from the park's North Entrance was plowed at least as far as the Lamar Valley for visitors in the 1930s, deep snow and cold temperatures kept all but the most intrepid travelers out of the park's interior from November through March. In 1949, snowplane tours escorted 35 visitors into the park, and in 1955, the first snowcoaches brought 507 people to enjoy the winter wonderland. The first private snowmobiles—all six of them—joined the snowcoach riders in 1963, traveling on ungroomed roads. At that time, Yellowstone in winter had fewer than 1,000 visitors and no hotels or restaurants, gas stations, or warming huts.

By the late 1960s, under increasing pressure from the surrounding states and communities to plow park roads, Yellowstone chose instead to encourage winter visitation by grooming interior roads for more comfortable travel by snowmobile and snowcoach. In this way, technological improvements have made the park a wonderful place for a broader range of visitors to enjoy winter scenery and wildlife. Sub-zero temperatures make steam from hot springs appear much more dramatic, and animals are easily spotted against the snowy backdrop, often congregating at thermal areas. The unfrozen waters enable ducks, geese, and other birds to spend the entire winter in the park.

National park policy permits snowmobile use only on designated routes and when it is consistent with the park's resource values and safety considerations. In light of such concerns, snowmobiles were prohibited at Yosemite, Sequoia-Kings Canyon, and Lassen Volcanic national parks after an initial period of limited use. Glacier National Park has never

ADAPTATIONS TO WINTER LIFE

The park's residents—both wild and human—have adapted to the rigors of Yellowstone's winters in a variety of ways over the years. Army scouts built the first "snowshoe cabins" in the 1890s for shelter during patrols into the park interior. Into the 1970s, nearly all rangers and their families moved from summer duty stations at Yellowstone Lake, Old Faithful, and Canyon to park headquarters in the lower, more moderate climate of Mammoth, where there has been a primary school since Army days. Today about 235 NPS and concession employees spend the winter in the park's snowbound interior, stocking in four months' worth of supplies. Their access to the outside world depends on satellite-transmitted television, mail that arrives twice a week on a snowmobile from Mammoth, and increasingly via email and the world wide web. While some employees transfer to less isolated locations when their children reach school age, others "home school" or commute the children by snowmobile to school. Most permanent employees find owning a snowmobile to be a necessity for occasional trips "out," but few seasonals can afford to buy one on six months' pay.

Many of the wild animals leave the park in winter: mule deer and five of the park's seven elk herds move to lower elevation ranges; army cutworm moths fly from the tops of the Absarokas to agricultural lands on the plains of Wyoming; many birds migrate to distant, even tropical habitat for the winter. Of those animals that stay, the long sleepers include ground squirrels, yellow-bellied marmots, and grizzly bears, who hibernate for four to six months. Others like pikas and beavers retreat from sight, seldom seen under snow or ice, but awake, living on food stored up during summer and fall.

Waiting to Inhale

During peak winter use periods, more than 500 snowmobiles may pass through Yellowstone's West Entrance in a single hour. This causes not only a great deal of noise and congestion, but foul air: snowmobiles are significantly more polluting than a modern automobile. Concerns about employee health led to the installation of a carbon monoxide monitoring station at West Yellowstone in October 1998. Subsequent monitoring has found carbon monoxide levels near the limits set by federal standards and the State of Montana. Other studies are researching snowmobile emissions and pollution deposits in the snowpack.

allowed snowmobiles on Going-to-the Sun Road. At Voyageurs National Park, snowmobiling is a popular but controversial winter recreation.

Groom It and They Will Come

Yellowstone's response to increasing winter use has been incremental and piecemeal, starting with more road grooming. Shelter for snowmobilers was provided by hauling in trailers to use as warming huts. More employees and volunteers were added to the winter staff, but they had to be housed in trailers or cabins that had been built for summer use. The demand for overnight visitor lodging was met by converting an employee dormitory to provide more rooms at Old Faithful (see page 6–44).

By the time the first formal analysis of oversnow use was done in 1990, annual winter visitation was passing 100,000. With interest in snowmobiles growing, the number of winter visitors continued to rise dramatically, reaching a record 143,000 in the winter of 1993–94. Visitation declined somewhat in the following years, dropping to 113,504 in 1996–97, perhaps because of negative publicity about crowding, a hike in the snowmobile entrance fee from $4 to $15, or unusually good snow conditions in lower elevations outside the park. By the winter of 1998–99, the visitor count was back up to about 120,000.

The Problems of Plenty

The cost of services. While winter visitors still comprise less than 4 percent of the park's total annual visitation,

Yellowstone has been unable to absorb the rapid growth without strains to its facilities, and staff as well as stress to park resources. Winter operations are especially expensive because of the logistics of servicing remote areas and over-snow transportation. For example, maintenance crews now plow 70 miles of asphalt, groom 184 miles of snow-covered roads for snowmobiles, and shovel walkways in developed areas and trails. Additional base funding has not been provided to add staff or address any of the maintenance, equipment, law enforcement, visitor protection, and utility costs that have resulted from the growth in winter visitation. Consequently, to the extent that Yellowstone has allocated funding to provide some increases in winter staffing and improvements in facilities such as warming huts and employee winter housing, it's been at the expense of summer operations. Since 1991, just the cost of maintaining park roads, buildings, and oversnow vehicles has grown 42 percent to nearly $1.2 million annually (see "Infrastructure" page 7-2).

A hazy shade of winter. Although Yellowstone is designated a Class I airshed under the Clear Air Act—meaning that its air quality should not be degraded—snowmobile exhaust creates clouds of smoke at park entrances and other congested areas that are far more polluting than the emissions from modern cars, which are subject to federal regulation. The effect of carbon monoxide, a major portion of the exhaust, on unacclimated visitors is intensified at higher altitudes.

Risk management. Expanding use not only means increased likelihood of conflict between users, but increased safety concerns. The number of snowmobile accidents in the park has been ranging from 25 to 42 each winter, some of which result in human fatalities. When the weather is mild and nighttime temperatures do not fall below freezing, groomed road surfaces rapidly deteriorate the next day. Even 400 snowmobiles can cause road conditions to decrease from good to deplorable by late afternoon, and some days up to 2,000 machines enter the park. Medical transports are difficult and slow; it can take four hours to travel the 30 miles from Old Faithful to West Yellowstone when road conditions are poor. To reduce the number of accidents and prevent use by children, all snowmobile operators in the park are required to have a valid driver's license.

Behind the scenes. All gasoline sold in Yellowstone during the winter must be brought into the park in the fall and stored. Winter gasoline sales to visitors doubled since 1985 and an additional station opened at Fishing Bridge in 1993. If gasoline needs continue to grow, storage capacity will soon be inadequate, despite a significant

increase in tank capacity at Canyon in the early 1990s. Storage capacity is also inadequate for the park's snowmobiles and grooming equipment, and for providing heating fuel. The demand for diesel fuel exceeded the supply at Canyon and Grant Village in 1994 and 1995, and propane storage was insufficient for the Lake district in 1992 and 1994.

Substantial solid waste is generated in the park interior during the winter by both resident employees and park visitors. Until the roads reopen in the spring, most solid waste in the interior is stored in 75-foot compactor trailers, creating wildlife attractants and potential health risks. These trailers are being used to their maximum capacity, and alternatives will require a major capital investment.

Many of the park's water and sewage systems were installed more than 25 years ago and were not designed for winter use, as the lines are too close to the ground surface or in thermal ground that accelerates their deterioration. At Old Faithful and Madison, sewage discharge systems are working at their capacity and cannot withstand any substantial increase in use. (See "Infrastructure," page 7–31.)

Yellowstone has made major strides in the last decade to purchase and maintain snowmobiles for park staff to carry out their work; one-third of the fleet is now replaced each year. Park mechanics have gained skills in fixing the temperamental machines, which are built for recreational use rather than the high-mileage work use by Yellowstone's snowbound staff.

CONFLICTING PRIORITIES

What visitors want. Eight surveys have been conducted in recent years to help the park learn more about winter visitors and their preferences. In the winter of 1996-97, about 64 percent of the season's visitors entered by snowmobile and 9 percent by concessioner snowcoach; the other 25 percent entered the park on its only plowed road, between Gardiner and Cooke City, Montana. Many of these visitors parked at trailheads to cross-country ski.

According to a visitor survey conducted in February 1995, the most common activities were viewing wildlife (91 percent), viewing scenery (90 percent) and snowmobiling (74 percent). "Trails and roads need grooming" was most often mentioned as what visitors liked least about their visit to Yellowstone, but noise and pollution from snowmobiles came in second. Such surveys expose the conflict: winter visitors want better traveling conditions, but the current level of motorized use is already damaging the quality of their experience.

While many snowmobilers may expect a "social" atmosphere, other winter visitors want quiet and solitude. Cross-country skiers have objected that on calm days they can hear snowmobiles even when five

miles from the nearest road. Some snowmobilers criticize the unsafe driving of other snowmobilers, and many visitors complain about the crowded parking areas, roads, warming huts, food services, and restrooms.

What wildlife need. Although visitors crowding around wildlife to get a closer look can be hard on animals at any time of year, in winter, when many animals survive on stored fat supplies, the extra energy they expend when frightened can mean the difference between life and death. While most of the park's deer, bighorn sheep, and pronghorns migrate out of the park in search of milder weather, many bison, elk, and moose remain in the park where the temperature routinely drops to 40° below zero and mountain meadows are buried under snow. Many animals travel on park roads, at least until they encounter traffic. They may appear especially docile and tolerant of human proximity because they are moving slowly or not at all, but research has shown that their heart rates increase when a snowmobile passes, indicating that they are stressed even if they do not move away. Any energy loss affects the animals' ability to survive the winter. The very quietness of a cross-country skier who suddenly comes upon a bison or elk herd without advance warning can also cause stress. New studies underway may help managers better understand the relationship between winter recreation and wildlife.

What local communities seek. Many communities surrounding the park see their own survival at stake in the winter use controversy. Although residents do not agree about what they expect from public land use, many depend on the associated tourist industry; some areas have little or no other economic base during the winter. The neighboring communities have spent millions to attract more winter tourists, who are believed to spend twice as much per capita as their summer counterparts.

With the support of the Wyoming congressional delegation, federal funding was provided to construct the 320-mile Continental Divide Snowmobile Trail, which starts near Pinedale, Wyoming, and goes through Grand Teton National Park, ending in the John D. Rockefeller Jr., Memorial Parkway, at which point snowmobilers can pick up the trail system into Yellowstone. West Yellowstone, Montana, has billed itself as "the snowmobile capital of the world," and Cody officials wanting to attract more winter tourists have pressed for more development and winter accommodations on the east side of the park.

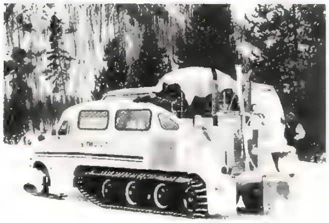
What the park needs to provide. While the new Snow Lodge at Old Faithful represents a quality experience that Yellowstone would like to be available to all winter visitors, few other visitor facilities in the park were designed for winter use. The winter lodging available at Mammoth Hot Springs is in buildings that were designed for summer use only, in some cases as seasonal employee housing. Warming huts are small and interpretive exhibits are few. Insulation, heating and plumbing systems, museum displays, and even the types of seating in visitor center auditoriums are not conducive to providing for visitors' comfort and enjoyment. Restroom facilities are often inadequate in number, size, and warmth.

Tending to public safety and park resources becomes more time-consuming, more costly, and riskier in winter, requiring additional staff training and equipment. Prevention and control of fires in historic buildings, guest lodgings, and employee residences are more difficult in snowed-in areas at sub-zero temperatures, as is cleaning up hazardous materials spills and herding bison.

What Has Been Accomplished

Interagency coordination. In 1994, a committee representing Yellowstone and Grand Teton national parks, the John D. Rockefeller, Jr., Memorial Parkway, and the surrounding national forests was formed to develop a coordinated approach to winter use issues and obtain public input on possible solutions. The committee advocated that a full range of winter use experiences be distributed across greater Yellowstone. The goal is to make information available so that visitors can choose the appropriate setting for their desired activity and enjoy it without risking their own safety or damaging the resources. Each national park and forest is responsible for determining appropriate management within that framework.

Concession contracts. Five snowcoach and 21 snowmobile tour operators are authorized to bring visitors into the park. Before 1995, such concessioners paid a flat fee of $300 a year. Under their current four-year contracts, they are required to put 4 percent of their gross annual receipts into an account that will be used to pay for improvements in warming huts, restrooms, and other facilities needed for winter operations. In the winter of 1998–99, these fees provided $31,397 toward such improvements.



New winter lodge. The Snow Lodge at Old Faithful, which was originally constructed as an employee dormitory and laundry, became the only winter lodging in the park's interior in 1971. A new lodge for both summer and winter visitors was completed in 1999, funded from revenues generated under the park's contract with Amfac. The new 100-room Snow Lodge provides better accommodations for about the same number of visitors as the prior building, and consolidates fast food, dining room service, and a ski shop into one building.

New Winter Use Plan. In response to a lawsuit filed by the Fund for Animals and several other parties concerned because the NPS had not prepared an environmental impact statement (EIS) on the effects of winter recreation and road grooming on wildlife and other park resources in greater Yellowstone, the NPS agreed in May 1997 to prepare a new winter use plan and EIS for Yellowstone and Grand Teton national parks and the John D. Rockefeller Parkway. In addition to input from the general public, five counties, three states, and the U.S. Forest Service have agreed to participate in the winter use EIS process. The draft winter use plan and EIS was made available for public review in August 1999 with alternatives that include both continuation of the current mix of uses and changes in permitted uses. In January 1999, the U.S. Environmental Protection Agency announced plans to regulate snowmobile emissions, but this is unlikely to have any impact on Yellowstone in the near term.

Program Needs

- ASSESS CAPACITY AND SET LIMITS. Each oversnow and motorized road segment in the park should be evaluated for the quality of the visitor experience, resource threats, visitor safety, the possible effects of displacing a large number of winter users to adjacent land, facility capacity, and budget limitations. Unless limits are imposed that hold use at or below current levels (120,000 to 140,000 visitors per season), additional steps must be taken to ensure that quality winter experiences and park resources are maintained.

- RANGER STAFF. Increasing the ranger staff would enable each major area in the park to increase road, snowmobile, and ski patrol; extend entrance stations staffing for longer hours; provide 24-hour emergency response; and take care of necessary resource monitoring and management activities.

Additional interpretive rangers are needed so that visitor centers and warming huts can be kept open for longer hours, seven days each week, and provide more interpretive programs and specially designed winter activities for children.

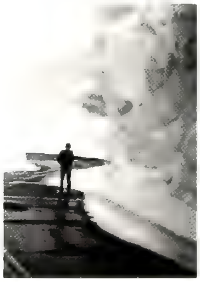
- MAINTENANCE CREWS. Additional employees are needed to adequately handle these responsibilities and to permit:
  - ➡ adequate building maintenance, including clearance of up to six feet of snow from roofs to protect structural integrity and human safety;
  - ➡ daily grooming of oversnow routes, which when they become choppy are uncomfortable and, at worst, capable of throwing people from snowmobiles;
  - ➡ plowing of roads as often as may be needed to ensure safe travel; and
  - ➡ adequate maintenance of frontcountry trails and boardwalks at Canyon and Old Faithful, which become treacherous when laden with ice and snow.

- Winter gear. Rangers need more double-track snowmobiles for emergency response and snow-course monitoring; helmets with radio and hearing protection; and caches located throughout the park interior with gear such as skis, snowshoes, avalanche probes and beacons, cargo sleds, and other search-and-rescue equipment. To improve structural fire protection, the park needs to enclose appropriate fire hydrants and purchase more oversnow fire-fighting vehicles with pumps and water tanks for use in developed areas. To keep roads, boardwalks, and trails to popular viewpoints reasonably accessible in winter, the maintenance staff needs more snowblowers to clear selected walking paths; additional snowmobiles, including double-tracks for towing loads in the interior; and additional groomers to remove the persistent moguls from snow-covered roadways.

- Infrastructure. Utility systems and facilities require major funding for their redesign or replacement to ensure the health and safety of park visitors and staff during the winter. Appropriate winterized housing is required at each remote area with sufficient storage space for food so that trips to town can be kept to a minimum. Because there are few garages, personal and government vehicles, including snowmobiles that must be kept at entrances and in the park interior, have to be shoveled out and won't start due to temperatures that reach 40° below zero.

- Warming huts and visitor contact stations. Warming huts at Canyon and Madison need to better accomodate visitors, and the concessioner-provided food service needs to be upgraded. Hut improvements are also needed at Norris, Fishing Bridge, and West Thumb. The Old Faithful Visitor Center should be replaced with a more appropriately designed year-round facility (see "Interpretation" page 6-8). Suitable exhibits and other interpretive media are needed to meet the park's goals for visitor safety and education and resource protection.

- Research. Previous winter-related research has focussed on visitor use, air quality, and wildlife species such as elk and bison. More needs to be learned about how winter visitation affects other species such bald eagles and trumpeter swans, as well as small mammals living under the snow and vegetation, especially in thermal areas. Research is also needed on the contaminants that are deposited in the snowpack as a result of snowmobile use and may eventually migrate to lakes and streams, on the effects of oversnow vehicles on air quality and noise levels, and how snowmachines can be made quieter and less polluting.



WINTER USE

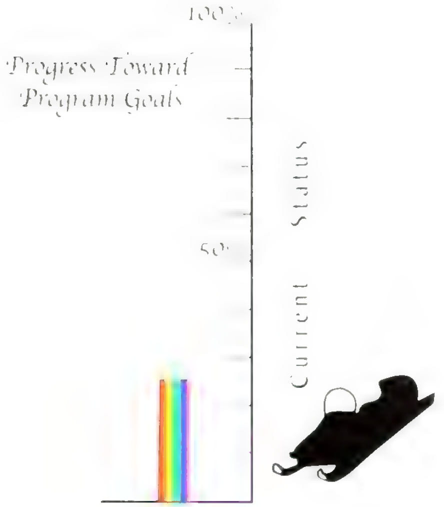
STEWARDSHIP GOALS

Through sound decision-making, managers implement strategies to determine and maintain appropriate levels and types of winter use.

A full complement of trained staff develops proactive programs to protect, interpret, and maintain resources and facilities to serve needs of winter visitors and protect the park environment.

Researchers assess effects of winter use on migrating wildlife, air and water quality, noise levels, vegetation, cultural resources, and other issues to provide park managers with information needed to help meet long-term goals.

The safety of visitors and staff is emphasized in Yellowstone's severe and life-threatening winter environment; programs are in place to orient and educate winter users of the park.



CURRENT STATE OF RESOURCES/PROGRAMS

Burgeoning winter use has out-paced the ability of park staff and facilities to provide high-quality visitor services in balance with resource protection objectives.

Park operations have not made a good transition from a mostly summer-season operation to addressing busy shoulder and winter seasons. Protection, interpretive, and maintenance efforts are mostly reactive. Despite a new winter lodge, warming huts, food services, and medical facilities are inadequate in winter.

Controversy surrounding issues of noise, air quality, wildlife, and human use levels complicates management of winter use and requires major research efforts, which are only partially funded.

Park newspapers, interpretive programs, ranger patrols, and snowmobile road-grooming efforts contribute to winter safety, but weather conditions, roads and terrain, and geographic isolation continue to make winter trips a challenging and distinctive experience.

1998 FUNDING AND STAFF

Recurring Funds [illegible]	$ 60,000
Non Recurring Funds [illegible]	$ 143,999

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan

Protecting Visitors

According to NPS management policies, the saving of human life takes precedence over all other considerations. Park staff, especially all those who wear the ranger uniform, share responsibility for protecting visitors from harm while they are in the park. Visitor safety and protection are achieved by:

- enforcing of applicable laws and park regulations;
- reducing hazards and maintaining trails, campgrounds, and other facilities used by visitors ;
- educating visitors about how they can help protect the park and themselves; and
- providing search, rescue, and emergency medical assistance when needed.

THE ENFORCERS

The primary responsibility for law enforcement and visitor protection in Yellowstone lies with the Division of Resource Management Operations and Visitor Protection. The park, which was established before the states of Wyoming, Idaho, and Montana, is an area of exclusive federal jurisdiction and the park's law enforcement rangers are authorized by Congress to enforce all applicable federal and state laws. Two district rangers oversee visitor and resource protection in 13 subdistricts and five entrance areas. Each of these has a ranger station that issues permits; provides information to visitors; and conducts daily patrols to check for safety hazards, resource impacts and violations, and opportunities to inform and educate visitors. Educating visitors about low-impact ways to enjoy park resources without danger to themselves or the park is the preferred and often the most successful law enforcement technique.

But when signs, park newspapers, and persuasive conversation fail or a willful violation of law occurs, rangers are prepared to use stronger tactics, such as issuing violation notices or making an arrest. During the 1998 peak season, Yellowstone had 63 full-time patrol rangers and 53 seasonal workers who were specially trained and commissioned to enforce laws and regulations. To facilitate cross boundary law enforcement, 20 Yellowstone rangers were also deputized as deputy sheriffs in one or more of the five counties adjacent to the park. Four criminal investigators, two of whom also served as Deputy U.S. Marshals and all of whom were deputy sheriffs, and a legal clerk followed up on serious crimes, advised park rangers on laws and procedures, and presented criminal cases before the resident park magistrate stationed in Mammoth Hot Springs or a federal district court judge.

THE HAZARDS OF YELLOWSTONE

Yellowstone and other parks appear deceptively tranquil to the millions of visitors who arrive in full vacation mode. Unsuspecting and distracted, travelers are at risk from traffic, an unfamiliar environment, and sometimes from each other.

Environmental hazards. Each year some of the visitors who wander off a boardwalk or trail in thermal areas are seriously burned when they fall through the thin crust into scalding water; these falls occasionally result in death. Wading in thermal pools is illegal, but that doesn't stop some visitors from doing it.

Trees that fall as a result of natural causes or human disturbance pose a risk to human safety and property. A high wind event in August 1996 blew down at least 583 trees in developed areas and resulted in 4 reported personal injuries and 29 incidents of property damage with a total estimated monetary damage of $54,000. As rangers spend more time removing trees that have fallen or that lean over trails, they are less available to patrol busy trails and meet with visitors to answer questions and explain backcountry rules.

Park regulations prohibit approaching within 100 yards of bears or 25 yards of other wildlife. However, elk and bison are often closer than that to roads and sidewalks in developed areas and such easy proximity tends to create an illusion of safety. The major cause of injury by wildlife occurs when visitors seek too close an encounter—a ground squirrel may bite the hand that feeds it, and bison have gored photographers coming in for a close-up. Since the era of roadside bear feeding ended in the 1970s, visitors are more likely to get hurt by a bison, but bears still pose a potential danger, especially to backcountry users who do not follow basic precautions. Rangers spend significant time educating visitors about how to avoid harassing and being injured by animals.

Traffic hazards. While park managers hope that Yellowstone provides a respite from urban crowds and the fast pace of the workaday world, the vast majority of park visitors arrive in the same six-week period between early July and mid-August each year—and most want to see the same highlights during their two-day visit. Combined with natural distractions and deteriorating road conditions, this heavy traffic makes for hazardous traveling for the unwary driver. As on other highways across the nation, drunk drivers pose a threat to themselves and other pedestrians and motorists. Rangers documented 518 traffic accidents in the park during 1998 which resulted in $2.1 million in property damage and 799 personal human injuries, some of which were serious or even fatal.

Other surprises. Accidents that range from overturned boats to visitors tripping from canyon overlooks have befallen vacationers and park workers. Rangers are called to respond to domestic quarrels, some of which turn violent, in park campgrounds and housing areas. The park is subject to litigation for perceived acts of negligence; an average of 50 claims are filed each year. While most are for small amounts, a man injured in a snowmobile accident outside the park near West Yellowstone filed a claim for $40 million, contesting the medical aid provided by park rangers who assisted U.S. Forest Service employees.

Crime and punishment. While most park visitors leave Yellowstone after a safe visit, some are victims of offenses such as burglaries, automobile break-ins, and an occasional assault or murder. In 1998, Yellowstone rangers issued 19,560 verbal warnings and 3,888 citations for violations of federal regulations; 97 people were arrested. The park maintains a two-cell jail, built by the Army in 1911, which still holds prisoners when necessary, pending a hearing before a judge. Although 98 percent of the recorded crimes in 1998 were misdemeanors—traffic violations, minor assaults, petty thefts, disorderly conduct, and illegal use of drugs or alcohol—163 known felonies were committed. Rangers on a typical patrol shift must be prepared to deal with anything from a quiet night of educational visitor contacts to a life-threatening attack on themselves, other employees, or park visitors.

Lost in paradise. As a routine part of their job, rangers are called upon to search for missing visitors anywhere from the top of Thunderer Mountain to the depths of Yellowstone Lake, and in conditions that range from desert-like in summer, in the Black Canyon of the Yellowstone River, to winter blizzards with "white-out" visibility. Only a tiny fraction of park visitors turn up missing, and most search-and-rescue operations cost less than $500, but the length, logistics, and cost of such episodes vary tremendously. Since 1994, the number of search-and-rescue incidents has ranged from 9 to 44 a year, costing the park from $20,000 to more than $147,000 annually.

A TENSE DAY AT OLD FAITHFUL

On a June afternoon in 1989, an 18-year-old Louisiana man named Brett Hartley walked into the park's busiest visitor center in sight of Old Faithful Geyser, brandishing a 30-caliber revolver and making threats. Some visitors milling in the lobby fled through the front doors, while a park naturalist quickly entered the auditorium where a film was showing and sent the audience out the back door. After returning to the lobby and telling the gunman the theater was empty, the naturalist became one of three staff and five visitors held hostage in one of Yellowstone's most perilous law enforcement situations. Rangers from around the park were summoned to assist; the best marksmen were stationed at a discreet distance outside the building while medics stood by and others were poised to make an assault on Hartley if the opportunity arose. While the naturalist phoned or radioed information from the disturbed young man to rangers outside the building, the other hostages were forced to lie on the floor for three hours. Criminal investigators had begun a detailed background check as soon as they found out the man's name.

Eventually, Hartley began talking directly by phone to ranger Bundy Phillips, who had basic training in hostage situations but had never dealt with such a dangerous incident. After repeatedly being asked to lay down his gun, Hartley abruptly told the hostages to get out, and they quickly left the visitor center. Several more hours and much conversation later, Hartley, who was distraught about his family and his health, surrendered peacefully. He was charged with a felony, but was found not guilty by reason of insanity, and committed to a mental health institution. Ranger Phillips received an Exemplary Act Award from then-NPS Director Ridenour for his role in diffusing the crisis.

An increasing number of backcountry users appear reluctant to leave the convenience of modern technology behind. A call for help from a cellular phone can cut hours or even days off the standard notification and rescue-response time, or may enable a ranger to guide a stranded party out of a predicament. On the other hand, inexperienced visitors may view their cell phone as a substitute for adequate skills, gear, or reasonable precautions and perseverance, confident in the belief that "help is just a phone call away."

RENAISSANCE RANGERS

In order to protect visitors from the myriad hazards they may face in Yellowstone, rangers must possess varied technical skills, training, and experience in structural fire, accident prevention and investigation, conflict resolution, and emergency response. The conventional expectation that park rangers can provide nearly any type of public service is increasingly complicated by the standards required for certification or performance of duties, such as technical rescue, law enforcement, and medical treatment.

Emergency medical services. Rangers respond to medical calls ranging from twisted ankles and dehydration to more serious illness and accidents in park hotels, along park roadways, and in the backcountry. They also routinely provide medical care and transportation for park employees and for residents and visitors in Cooke City, West Yellowstone, and Gardiner, Montana. The necessary treatment is determined and performed in cooperation with the park's contracted medical providers. (See "Medical Care," page 6-24.)

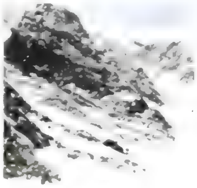
Yellowstone's isolation from advanced medical facilities, as well as technological advancements and liability issues have increased the need to have highly trained park staff and equipment on hand to perform emergency extrication and defibrillation, and to respond to hazardous materials spills and deal with blood-borne pathogens. The park encourages all permanent field rangers to be certified as Emergency Medical Technicians (EMTs), which requires 120 hours of initial training plus 48 hours of continuing education and a 24-hour biennial refresher class. All park rangers must at a minimum be trained to serve as "first-responders" and have received cardio-pulmonary resuscitation (CPR) training and certification. An emergency medical services coordinator arranges or teaches classes for rangers, other employees, and local citizens who wish to receive the training.

In 1998, the park ranger staff included 80 emergency medical technicians, 38 first responders, 15 park medics, and 2 paramedics. They provided basic or advanced life support care to 730 people, conducted 311 ambulance transports, and coordinated 39 air ambulance transports; only 6 of nearly 3 million park visitors died in Yellowstone.

Law enforcement. To become a permanent commissioned law enforcement ranger, applicants are required to complete 480 hours of specialized coursework at an approved federal training academy, in addition to field training experience at Yellowstone or another park. Permanent employees receive the time off for training at the park's expense, but to become a seasonal ranger candidates typically spend their own time and money to attend a school certified to provide a condensed 360-hour course. Both seasonal and permanent rangers must also attend an annual 40-hour basic law enforcement refresher; additional training is required for such skills as fingerprint classification, defense tactics, radar certification, and firearms instruction.

Compliance with the mandated requirements to conduct background investigations before granting police powers to an employee has been time-consuming and costly. In 1998, the park submitted paperwork to the federal Office of Personnel Management to check on 52 seasonal and 42 permanent rangers, for a total cost of nearly $232,000. So far the NPS Washington office has paid the cost of these investigations. The park's criminal investigators performed similar background checks on security guards and armored-car drivers contracted to work in the park, and on park staff who handle money.

Search and rescue (SAR). Yellowstone rangers manage and conduct search-and-rescue operations in the park and, when requested, outside the park. A 21-member advanced technical rescue team specializing in high-angle rock and technical river operations trains together six times each year and teaches basic rescue skills to other park employees. Five certified SCUBA divers make up the park's dive team, which is used in searching for boats and victims lost in lakes, rivers, and under the ice. Divers must make at least 12 dives each year and attend a biennial 40-hour refresher course to maintain their certification. Yellowstone's certified dive master also conducts training and examinations for other nearby parks, such as Grand Teton and Bighorn Canyon.



In 1998, the park had one SAR-dog team that trained at least once each month with a statewide SAR organization and met NPS standards for certification. A SAR-dog team found two 11-year old girls missing over a rainy night in the Canyon area in 1995. These teams have also located three avalanche victims in various incidents near West Yellowstone, bringing closure to these tragedies and reducing the effort and danger faced by other searchers.

To enhance employees' ability to deal with winter survival and rescues, the park sponsors one-day training sessions in avalanche awareness and safety precautions for all interested staff. More advanced three-day winter survival training is required of all employees who venture into snow-covered backcountry on duty; after a classroom session on preparedness, winter first-aid, and proper clothing and equipment, participants venture out on skis or snowshoes, construct snow shelters, and spend the night winter camping.

Yellowstone is fortunate to have a helicopter stationed in the park during the 100-day fire season (see "Wildland Fire," page 2–29). When not in use for fire management, the helicopter is available for searches and rescues throughout the park and surrounding area upon request. Specially trained members of the helitack crew can perform highly technical rescues, including being slung on a cable beneath the aircraft in a harness with a victim. The helicopter flies 20 to 60 hours each summer on SAR missions, often helping in a dozen or more major park incidents. When necessary, rangers call for life flights to transport seriously injured victims from the park to regional hospitals.

General assistance. The typical patrol shift does not require all of a ranger's specialized skills in law enforcement, medical assistance, or search and rescue, but providing assistance to park visitors is also important, and ranges from helping them find a needed facility or popular destination to extracting keys from an accidentally locked vehicle. Visitor service is also provided at ranger stations, where staff, student interns, and volunteers provide information and issue permits for boating, angling, and backcountry use. Broad knowledge of park resources and services is required of all rangers, as is patience and a courteous attitude.

Recent Accomplishments

Removing hazards. Rangers and other employees are expected to be alert for safety hazards. Along roadsides, rangers direct traffic and keep visitors at safe distances from animals and passing cars. Broken boardwalks and guardrails, major potholes in roads, scattered glass or hazardous trash, and leaning trees must be tended to by rangers on patrol or reported to maintenance crews for major repair. The ever-changing thermal features sometimes require re-routing visitors in thermal areas as the forces of geology overtake a trail.

Saving human lives. During the 1990s, on average nine visitors died in the park each year. Park staff continue to seek better training and equipment to reduce the incidence of these tragedies. The EMS program has acquired eight ambulances since 1993 to replace transport vans and suburbans which were being used as for emergencies. Each of the new vehicles has defibrillation equipment that, when used by staff trained in advanced life support techniques, has enabled rangers to save one or two lives each year that otherwise would have been lost. Two new oversnow ambulances and avalanche safety gear, including beacons and probe poles that can be used by employees heading into the backcountry, provide for improved winter safety. Throughout the park, rangers' rescue caches are being supplied with updated equipment for SAR missions.

Assisting neighboring communities. For Yellowstone's gateway communities, the park rangers are often the only trained personnel available to help with law enforcement, search and rescue, and emergency medical incidents. The park has mutual aid agreements with Park and Gallatin counties in Montana where, at the request of law enforcement authorities, Yellowstone's SAR teams have searchers, dog teams, and helicopter assistance for incidents outside the park. They have also conducted training for employees of Park County, Montana and Park County, Wyoming.

Since 1993, Yellowstone has participated in the national Drug Abuse Resistance Education (DARE) program, aimed at kindergarten through fifth-grade youngsters. The park's DARE officer spends several days each week during the school season working with local communities. Program goals are to enhance drug and alcohol awareness and promote positive alternatives to substance use among youths.

In January 1998, the park received $2,400 from Montana's Gallatin Project for a new computer system to track domestic violence and child victimization cases in and near Yellowstone; rangers have been involved in investigating eight such cases under a new cooperative agreement. A collateral benefit from all these community efforts is improved rapport between park rangers and local residents.

A NOT-SO-ROUTINE PATROL

A routine patrol along Yellowstone Lake shore turned into a life-saving incident for seasonal ranger Dino Nicholau. On a July evening in 1998, he noticed a recreational vehicle parked in a picnic area with its engine off and its windows closed, but the generator was running. When a knock on the door brought no response, Nicholau looked in a window and saw what appeared to be an unconscious person. He went in the door and, although nearly overwhelmed by the heat and fumes, found three unconscious people—an elderly couple from Mississippi and their 5-year old granddaughter. Nicholau carried two of the tourists to safety, by which time help had arrived to assist him in carrying the third. While other family members were out fishing, Charles, Edwina, and young Sarah Royce had almost succumbed to carbon monoxide poisoning. After the rangers provided emergency medical care, the three patients were transported to area hospitals for further treatment. Nicholau's quick thinking saved three lives and averted tragedy for this family.

Program Needs

- ADDITIONAL STAFF AND STREAMLINED SERVICE. Obtaining qualified seasonal staff has become more difficult as job requirements have increased and funding has not kept pace with growing visitation, and with the lengthening of the peak season into spring and fall months. While visitation grew 32 percent between 1987 and 1996, the number of seasonal rangers dropped by 33 percent. This staff reduction limited the park's ability to both carry out routine activities and respond to emergencies. Despite the best efforts of existing staff, rangers are spread thinly throughout the park. A common visitor complaint is that "you can never find a ranger when you need one."

Improved facilities and sharing training and responsibilities that are split between two uniformed divisions and facilities could help Yellowstone continue to provide basic services to the public. To maintain optimum levels of proactive ranger patrols and provide better visitor service, more positions are needed.

The park would also benefit from the addition of full-time SAR and EMS program coordinators to oversee more professional programs with better planning, training, interagency cooperation, logistics, and managing for incidents. These specialists would also undertake more proactive efforts to educate visitors, employees, and local community residents in how to prevent accidents and SAR incidents.

- EQUIPMENT. Costs to meet agency-mandated standards for rangers' personal protective equipment such as firearms cleaning kits and targets, soft body armor, and ammunition have escalated. Each subdistrict ranger station needs SAR equipment to meet the area's needs. Some stations need whitewater rescue gear, while others need ropes, webbing, and other technical climbing equipment; many need All Terrain Vehicle (ATV) wheeled litters and a "sailing winch" to extricate and transport victims from backcountry accidents. Needed EMS equipment includes more oversnow ambulances or transport vehicles, automated digital blood-

and care-provider restraint systems for park ambulances, some of which will need to be replaced soon.

- TRAINING BUDGET. Funding is also inadequate to support the continuing education and training of park rangers. While many supervisory rangers have taken basic training in search management, it has been five years or more since most have received any refresher in new skills and techniques. More employees should receive basic training in EMS and SAR, and practical field-training exercises should be conducted at least twice a year to keep staff current. Staff turnover creates a continual need to provide new members of EMS, SAR, SCUBA, and other skills teams with the knowledge and experience needed to protect the safety of park visitors, other employees, and themselves.

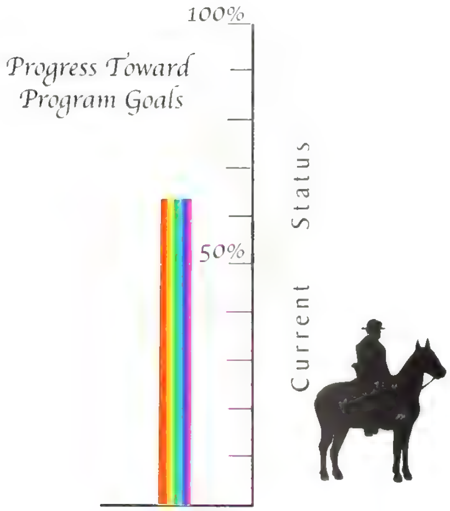
VISITOR PROTECTION

STEWARDSHIP GOALS

- Fully trained professional staff proactively protect visitors and enhance visitor enjoyment through high-quality visitor service and assistance throughout the year and throughout the park.
- Rangers reduce safety risks and increase public safety awareness through on- and off-site patrols, actions, and educational outreach efforts.
- Visitors are assured of rapid response to emergencies and receive appropriate assistance in keeping with the setting and other park goals.
- Rangers assist neighboring communities and jurisdictions with law enforcement, search and rescue, emergency medical situations, and other needs as requested or appropriate.

CURRENT STATE OF RESOURCES/PROGRAMS

- Most visitors have safe and satisfying park visits, but rangers receive minimal training needed for their own and visitor protection, and limited staff results in barely adequate resource protection and safety patrols.
- Rangers respond to immediate safety threats, but staff have little time for proactive programs in or out of the park.
- Top priority is given to missing or injured persons, reported crimes and other emergencies, resulting in an overall low incidence of visitor accidents and victimization.
- Mutual-aid agreements with gateway communities are well-established and appreciated; special programs such as DARE and shared training have increased cross-boundary cooperation.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 3,713,000
Cost Recovery/Special Use Fees	$ 40,799
Non-Recurring Funds	
One-time Projects	2,000
Fee Demonstration Program Projects	$ 15,000
Staff	72 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Structural Fires

While the programs aimed at managing landscape fires have received much attention since the Yellowstone wildfires of 1988 (see "Wildland Fire," page 2–29), fire protection for national park facilities and the people using them has not always received similar attention. During the peak summer season, Yellowstone's overnight population may reach more than 18,000 and its daytime population 32,000, yet its capabilities for suppressing structural fires and undertaking fire-related rescue operations fall far short of those considered necessary in a residential community of comparable size. The additional challenges posed by a large park with seasonal operations and widely separated developed areas present a serious risk to building occupants and to irreplaceable historic structures.

In 1995, the structural fire staff moved into a remodeled garage that serves as the park's Emergency Operations Center in Mammoth, but protection of park buildings, many of them multi-story wood structures, calls for separate fire-fighting equipment and crews in each of the park's five large and three smaller developed areas—a standard Yellowstone does not fully satisfy. Four major park locations (Lake, Old Faithful, Grant, and Mammoth) each have two fire trucks, while Canyon has one. In 1994, an emergency services building was constructed to serve the Old Faithful area, but the availability of trained structural fire staff is extremely limited, and the equipment on hand is not suitable for fighting fires in winter, when several hundred people may be spending the night there. Similar problems in winter protection exist at smaller park housing and administrative areas.

The personnel that may be available to respond to the more than 250 alarms a year that occur at Yellowstone are less than half of what is considered necessary. The park has a structural fire staff consisting of a fire chief, a fire truck mechanic, and an administrative assistant, and for assistance they can call on up to 60 employees holding a variety of other jobs throughout the park. The structural fire staff provide training, equipment, and supervision to the other park employees who assist at structural fires and other emergencies such as hazardous materials spills, vehicular accidents that require complicated passenger extrication, and confined space rescues, but many of these employees are seasonal and only marginally trained, and there is not adequate coverage during the off-season. The park spends $35,000 a year to respond to alarms, and disposal of contaminant spills creates additional costs. The structural fire staff are also responsible for conducting building inspections for safety and for promoting fire prevention to school children and community residents.

Program Needs

- Staff and training. The structural fire workload and health and safety mandates require that Yellowstone has staff trained in structural firefighting and emergency response and rescue. At Old Faithful and Mammoth, such staff must be available 24 hours a day, seven days a week, year round. Other developed areas should have full coverage during the summer. The park also needs to have sufficient self-contained breathing apparatus and personal protective gear for each trained firefighter.

- Mobile equipment. The park needs new fire and rescue vehicles that meet the standards outlined for high-risk, high occupant-load facilities. Trucks must meet specifications for pumping water. To be able to respond adequately to winter emergencies in snowbound locations, the park needs to enclose fire hydrants and obtain specially equipped three-track fire-fighting vehicles with pumps and water tanks for use in developed areas. To adequately protect persons and property, additional winterized fire stations and hose houses should be constructed.

STRUCTURAL FIRE

STEWARDSHIP GOALS

Yellowstone has a comprehensive structural fire program with adequate equipment and trained firefighters who respond to all structural fires to protect human lives, cultural resources, and other property.

Trained staff respond promptly and effectively to hazardous materials spills and related emergencies that threaten human safety and natural and cultural resources.

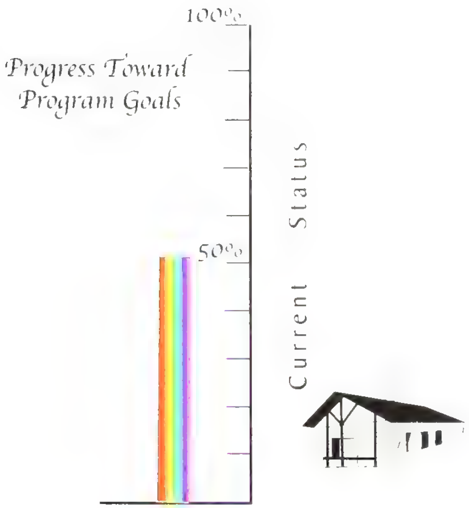
Staff have a proactive program of fire prevention and detection, working with other park staff and local community residents.

CURRENT STATE OF RESOURCES/PROGRAMS

A limited number of trained firefighters respond to structural fires to protect human lives, cultural resources, and other property. Additional staff, training, and equipment are needed to meet standards for protection of public safety, historic structures, and other government property.

Staff respond to hazardous materials spills and incidents. But additional specialized training and equipment are needed.

Limited fire prevention and safety education programs occur in park schools and communities. More should be done to alert staff and residents to fire danger and preventative measures.



1998 FUNDING AND STAFF

Recurring Funds Yellowstone N.P. Base Budget	$ 226,000
Staff	2 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Protecting Resources

Just as uniformed park staff all take part in protecting people visiting and working in Yellowstone, so do they share responsibility for protecting cultural and natural features from whatever inadvertent or deliberate damage may be done to them as a result of human activity. These obligations are carried out by:

- monitoring resources to determine visitor impacts and effective means of minimizing them;
- providing trails, campgrounds, and other facilities in areas most often used by visitors;
- educating visitors about how they can help protect the park resources; and
- enforcing applicable laws and park regulations.

ENFORCING THE RULES

The protection of park resources from injury or harm is one or the oldest and most traditional of all ranger duties. In 1998, Yellowstone rangers issued 222 violations for illegal camping, 110 for illegal fishing, 27 for poaching, and 51 related to the use of firearms in the park. Rangers and investigators also respond to a variety of other visitor infractions against park resources.

Harvesting park wildlife. Although permitted outside the park, wildlife hunting and antler collecting are illegal in the park. In the fall, when hunters use backcountry areas immediately adjacent to the park, some slip across the 291-mile boundary accidentally or deliberately, and hunt elk, sheep, grizzly bears, moose, deer, and other wildlife. Each year from September through November, park rangers patrol the rugged boundary by horseback and on foot with the help of officers from state game and fish departments and the U.S. Fish and Wildlife Service. Steep terrain, deep snow, and inclement weather often hinder efforts to protect the park during this critical period when hunting is legal outside park borders.

In the spring, when elk, deer, and moose drop their antlers, "horn hunters" are tempted to prowl the sparsely patrolled park. High black-market prices for wild animal parts have necessitated major undercover investigations of wildlife poaching and trafficking. Prices for bighorn sheep have ranged from $2,000 to $10,000, and bear gall bladders are sometimes sold for up to $150 per ounce in the illegal market. Even the apparently innocuous "horn hunting" deprives small mammals of calcium and other benefits they might gain were not the horns removed from the park to bring upward of $12 per pound to poachers.

AN UNFORTUNATE TRADITION

From Yellowstone's earliest days, the park's wildlife have been the target of illegal hunters. In the 1890s, bison heads were worth $100 to $300, which was serious money at the time; today a large bison skull may be worth $5,000 or more. While patrolling Pelican Valley on snowshoes in March 1894, Felix Burgess, a park scout, and Sergeant Troike of the U.S. Cavalry, caught Ed Howell poaching bison. Howell and a partner had settled in a winter camp on Astringent Creek, intending to kill all the bison there.

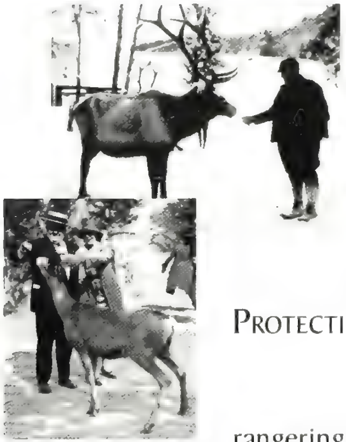
Nearly a century later, in 1984, Yellowstone rangers and other federal agents completed a successful undercover "sting" operation, nabbing local poachers on felony charges that led to the imprisonment of several offenders. In 1991, park rangers caught two notorious poachers, Donald Lewis and Arthur Sims, who for eight years had used Yellowstone as a personal hunting ground and the filming location for a "how-to" hunting video, which showed 12 trophy elk bulls being shot by bow and arrow.

Fishing limits. Although fishing is permitted in many park waters, it is subject to specific regulations regarding species, season, size limits, and type of bait and tackle used. All anglers over age 15 are required to purchase a permit. While most visitors comply with creel and size limits, others violate the regulations, such as one family that was found harvesting and canning Yellowstone's fish for sale out of their trailer in a park campground.

Damaging rocks and artifacts. Whether for fun, profit, or sheer possessiveness, park visitors have vandalized some archeological sites and removed cultural artifacts removed from the context in which they should be studied. Archeologists doing survey work in 1997 found evidence of illegal collecting at their study sites. Informal surveys of the Obsidian Cliff area in 1996 suggested that approximately 32 percent of the people visiting the site removed rock specimens. Because current funding only supports intermittent patrols in the area, visitor access to the Obsidian Cliff face has had to be restricted in order to protect this important area.

Straying out of bounds. Yellowstone provides thousands of sites for visitors to camp or to park and enjoy a walk or picnic. But off-road parking and illegal fires and campsites damage the soil and vegetation, and may promote the spread of non-native plants.

Rangers use a combination of visitor education, use restrictions, and enforcement of the rules in an effort to minimize these impacts.



Feeding the animals. Wild animals that learn to depend on human foods are deprived of their natural balanced diet, and may become less able to survive on their own or cause injury to visitors in their pursuit of human food. Although park rules forbid leaving food unattended or deliberately providing it to wildlife, many visitors cannot resist the temptation to offer handouts. Rangers use persuasion, and penalty if necessary, to keep visitors from risking an animal's and their own well-being.

Protecting and Managing the Park's Resources

Yellowstone has endeavored to maintain the NPS tradition of "resource rangering," keeping employees in all divisions and job specialties involved in protecting the park's resources. All uniformed staff are encouraged to participate in visitor education, especially as it relates to resource protection. Visitors enthralled by the sight of wildlife along park roads provide a "captive audience" to which a patrolling ranger can explain an animal's ecology and population status. While talking with anglers, rangers check for compliance with park regulations, promote minimum-impact fishing, and discuss the threat posed by the introduction of exotic species such as lake trout. Rangers on foot or horse-patrols through popular developed areas take opportunities to inform visitors about cultural resources and geologic hazards.

But the realities of park operations and the resulting specialization mean that maintenance workers must devote primary attention to building and road repair, and ranger-naturalists' schedules are filled with walks, talks, and time at visitor center desks. Similarly, most of the average patrol ranger's time is taken by response to accidents, building alarms, and other requests for visitor service or law enforcement.

To strengthen the connection between resource protection and management, Yellowstone initiated a resource operations program in the late 1980s. In addition to resource specialists assigned to the Yellowstone Center for Resources, who are responsible for monitoring the condition of the park's cultural and natural features and determining what needs to be done to protect or restore them, five full-time resource management coordinators and typically up to 15 seasonal employees are assigned to the Division of Resource Operations and Visitor Protection.

Resource operations staff assist in preparing resource plans and carrying out the resulting management programs in the field. With assistance from patrol rangers, landscape architects, interpreters, and maintenance workers (as their time permits), these specialists assess the condition of backcountry campsites, restore features that have been

THE RESTITUTION FUND

A fund was established in 1994 to provide some restitution to the park when its natural or cultural resources are abused. Although courts have ordered those convicted of violations to pay $37,500 to the fund since its inception, only $22,500 had been collected as of mid-1999. Still, this has paid for improved crime-fighting equipment and for ranger training to increase apprehension of lawbreakers.

The fund also provides a source of reward money, an inducement that has helped solve most of the park's known poaching cases. In one incident in Elk Park in 1993, a frequently photographed and well-known trophy bull elk was poached in the height of the autumn rutting season. With the assistance of professional photographers, the elk's killer was apprehended, tried, and convicted with penalties of $10,000 restitution to the park and eight months' jail time. In this way, the fight to protect Yellowstone is supported by payments from those who have sought to violate it.

disturbed by human use, take daily weather readings, and sample wildlife carcasses for disease. The responsibility to protect cultural resources–historic buildings and trails and archeological sites–must receive equal emphasis. Resource coordinators serve as liaisons between field staff and subject-matter specialists and researchers, providing resource education for other field staff by holding workshops, maintaining resource libraries, and sponsoring informal seminars. They also provide vital scientific information through inventory and monitoring programs. (See "Inventory and Monitoring," page 5–9.)

Controlling exotic invaders. Botanists have identified more than 170 species of exotic plants in the park, including most of the weeds listed as "noxious" in the states of Montana, Idaho, and Wyoming. Yellowstone's native plant communities are at risk from these invaders, and resource operations staff lead the effort to prevent, monitor, and control their spread. Working with the Greater Yellowstone Weed Coordinating Committee and vegetation specialists who help prioritize the threat posed by various non-native plants, field staff identify and map infestations, prevent spread associated with construction and other ground-disturbing activities, and take action to eradicate or contain the most serious threats. In 1998, resource operations staff spent $190,000 in efforts to control 33 non-native plant species using approved herbicides on 1,300 acres, manual control on 500 acres, and an experimental burn on 200 acres (see page 2-24). However, the program has been limited by its irregular funding, as well as competition for money from more charismatic species and resource issues.

In addition to plants, exotic terrestrial and aquatic animals can invade the park. Gypsy moths (*Lymantria dispar)* have done extensive damage to deciduous trees since their arrival in the United States in 1869. While Yellowstone has remained relatively free of gypsy moths so far, district resource specialists have worked with entomologists from Animal and Plant Health Inspection Service (APHIS) and the U.S. Forest Service to install about 80 traps each year to detect gypsy moth presence and trends.

Managing hazard trees. Although the park's hazard tree crew ceased being funded in 1986, trees likely to topple continue to be a problem in developed areas, campgrounds, and along roadsides (see "Vegetation," page 2–23). Resource operations staff work with other park and concessioner staff to identify and remove trees that threaten to fall on unsuspecting visitors and employees. After tree removal in developed areas and campgrounds, planting of new seedlings is done by resource operations, maintenance, or concessions staff and volunteers.

Managing habituated wildlife and pests. Coyotes and bears that lose their fear of humans may injure a visitor if they become "habituated" to people and their food. Unwary visitors have been gored by bison, bitten by coyotes, kicked by elk, or they have lost their picnic food to scavenging ravens. In park lodging and employee housing, rodents, wasps, hornets, and bats prove to be annoying. When trash removal, special warning signs, or educating and fining visitors fail to keep wildlife from becoming habituated and creating a risk to human health and safety, resource rangers must resort to more extreme remedies. Rodents and insects are exterminated; bats and other wildlife are trapped and relocated if feasible, otherwise they must be killed.

Protecting thermal features. Yellowstone spends enormous effort and thousands of dollars on signs and interpretive displays to educate visitors about the fragile nature of geothermal features. Still, thoughtless visitors or vandals sometimes break off pieces of sinter or travertine out of curiosity or to take as souvenirs, carve graffiti into the formations, or clog geysers and hot springs by using them as

wishing wells or trash bins. In 1996, resource operations staff monitored 81 thermal features in the Upper, Middle, and Lower geyser basins for vandalism. More than 3,000 coins and countless cigarette butts, nails, rocks, and pieces of boardwalk were removed from hot pools during the course of that one summer.

Plugging the narrow vents impedes the flow of water from below and can alter a feature's eruptive pattern or lower its temperature, influencing the algal growth that produces the beautiful coloration in many hot springs. Rangers have helped the park geologist pump water out of the famous Morning Glory Pool, trying to reach and extract material plugging the hot spring's vent, or to induce an eruption in which the feature would clean itself. Although this technique worked once, the last attempt at a major cleanout failed, probably because too much junk had been thrown in the water.

Herding bison. While managers from the park and other agencies debate what to do about bison that cross the park boundaries (see "Bison," page 3–16), the rangers have kept track of the animals' daily movements, temporarily hazed them back into the park, and operated a capture and shipping facility near Gardiner, Montana, since its construction in 1996. During the winter of 1996–97, rangers staffed the capture facility almost daily, capturing and testing bison for brucellosis; 461 were sent to slaughter, and another 107 that tested negative for brucellosis were held for the winter and hazed back into Yellowstone during spring greenup. These difficult chores were greatly reduced during the next two winters, which brought milder weather and less bison migration out of the park.

Increasing resource knowledge. In 1986 the Division of Resource Management Operations and Visitor Protection initiated a resource management training session that has become an annual parkwide event. Focussing on different themes each year, the workshop brings together staff from across the park, from neighboring agencies, and from academia. This training, which is mandatory for park rangers, has been accomplished with only a small budget for guest speakers' travel and expenses.

Caring for natural and cultural sites. In 1998, special funds provided under the Archeological Resources Protection Act (ARPA) helped pay a portion of the salary of a seasonal ranger whose responsibility included monitoring and protecting cultural features.

Program Needs

- Additional staff. Currently, only one ranger district has an assistant resource operations coordinator to ensure an effective, professional program; additional permanent resource specialists and seasonal staff are needed for vegetation, bison management, and other resource operations. Cultural resource sites need to be regularly patrolled by trained officers. (See "Cultural Resources," page 4-1.)

- Training. Resource rangers need additional funds to attend professional meetings and training courses outside the park to keep abreast of changing developments in the fields of cultural and natural resource management.

- Equipment. The few vehicles assigned to the resource operations staff are old and in disrepair; to save money, the rangers have had to use surplus vehicles from the Department of Defense and other government agencies. Other basic equipment and supplies needed include computers, GIS software, GPS units, safety gear, and equipment to carry out monitoring programs, weed control, and backcountry work assignments.

RESOURCE PROTECTION

STEWARDSHIP GOALS

Professionally trained resource specialists participate in planning and implementing field-level inventories, monitoring programs, and resource management actions to protect cultural and natural resources.

Rangers and other park staff assist in resource operations-oriented programs, education, and visitor contacts, trained and guided by resource specialists.

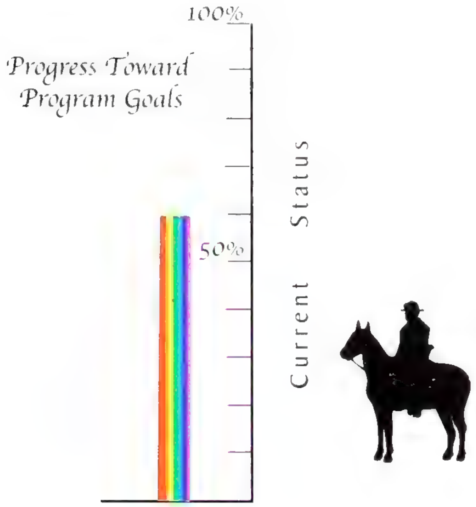
Field projects are accomplished safely, efficiently, and cost effectively.

CURRENT STATE OF RESOURCES/PROGRAMS

Existing specialists have accomplished a number of inventories, monitoring, and mitigation actions, but equipment, training, and staff remain limited.

Interdisciplinary "resource rangering" receives continued emphasis, but time and funding for field-level resource operations fall short.

Despite renewed emphasis on safety, resource operations staff lack adequate equipment, reliable vehicles, and the training needed to perform their varied responsibilities.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 331,200
Cost Recovery Special Use Fees	199,336
Non Recurring Funds	
One-time Projects	$107,300
Staff	15.6 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Infrastructure

During Yellowstone's early years, construction of roads, buildings, and other facilities proceeded as opportunity and money allowed and was designed mostly to accommodate the growing list of visitor needs and the increasing park staff. As a result, by the 1930s the major visitor attractions were connected by two or three different roads. In addition to grand structures such as the Old Faithful Inn and the Lake Hotel, a motley assemblage of maintenance camps, woodcutters' cabins, sawmills, horse pastures, dairy operations, slaughterhouses, lunch stands, construction debris, and dump sites had sprung up along these roads.

Gradually, the practice of constructing park facilities wherever it appeared convenient became outmoded. When the park developed its master plan in 1973, the prevailing philosophy was to consolidate the infrastructure necessary to support visitors and park employees into a few developed areas. To preserve as much of the park as possible in its natural state, all land within the park boundaries was classified as either a "Natural Zone," which is to be left largely undisturbed, or a "Park Development Zone," in which all roads, trails, visitor facilities, administrative headquarters, and employee housing are located. After peaking several decades ago, the total developed area declined, as roads, facilities, and service areas have been eliminated or consolidated; only about two percent of the park (less than 50,000 acres) is now so occupied. For example, what was once a stagecoach road over the top of Mount Washburn and later used by cars and bus tours has become one of the park's most popular hiking trails.

Consequently, the extent of development itself does not appear to represent a threat to the preservation of the park's cultural and natural resources. The adaptive use of historic park buildings, for example, helps provide the means to preserve them. Even wildlife species vulnerable to competition for space appear to have adapted and to be capable of surviving in marginally disturbed areas. The challenge for park managers has been to maintain the infrastructure in the face of growing visitation, decreasing budgets, and more stringent regulations. Compliance with the Uniform Federal Accessibility Standards (UFAS) and with fuel storage, hazardous materials, and other regulations requires significant money and staff time. The lack of a consistent cyclic maintenance program is increasingly evident, especially in the condition of park roads. While major failures are addressed, little or no preventive maintenance is regularly done.

In many ways, the park functions like a county, with a responsibility to provide the services and infrastructure that most citizens expect to obtain through public or private utilities. Park roads, buildings, trails, boardwalks, and water and sewage systems must all be properly maintained in order to ensure that visitors can enjoy the park in a safe and sanitary environment. Employees are housed and provided offices and workshops inside an array of administrative facilities. Equipment—everything from hand-held radios to the fleet of vehicles used for park business—is purchased, maintained, and repaired. In some cases, the park's geographic isolation, rigorous environs, and seasonal variations increase the costs and logistical challenges of keeping it running smoothly.

Park facilities today must meet the test of being well designed, energy-efficient, and cost-effective, yet not detract from the park's natural and cultural features that the public comes to experience. Yellowstone will make better use of new techniques and designs to build and maintain "sustainable" facilities for the future.

Planning Ahead

The design and construction of an infrastructure to serve visitors and support park operations requires that the park have its own professional planning and compliance staff. The regulations that result from laws such as the National Environmental Policy Act (NEPA) and the Endangered Species Act demand that park managers and interested citizens carefully consider the impacts of possible alternatives not only for buildings and other development, but for natural and cultural resource issues. Currently, four planners and one assistant work to develop plans and assess the possible effects of projects on the natural, cultural, and human environments. When critical projects fall behind schedule, they jeopardize a variety of contractual agreements, and other priorities receive little attention. To help cope with the backlog, the park has temporarily reassigned staff from other divisions, but these personnel lack the training and experience to efficiently complete plans and the required environmental compliance.

Planners and other park staff are also challenged by the changing objectives of park management and constituent groups. By the time planning is completed for a project, public opinion and the bureaucratic response to it may have shifted, causing the best-laid plans to sit dormant; litigation and legislation have sometimes meant that the park must change priorities on short notice.

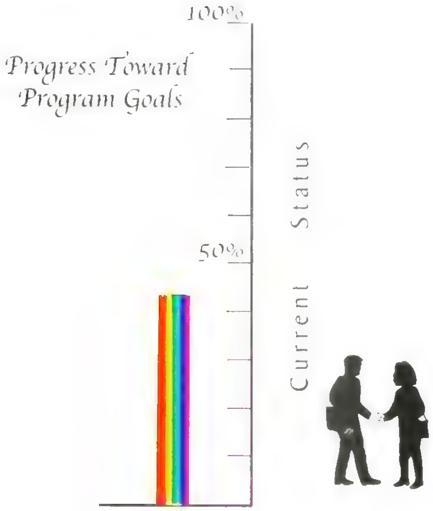
The park is currently operating from a Master Plan completed in 1973 that provided overall direction for resource management and development. Since that time, 22 major supplemental site, resource, or issue-specific plans have been approved. Planning projects underway in 1998–1999 included a new Winter Use Plan (see page 6–45); environmental assessments for road reconstruction, employee housing, and cellular phone service; a Commercial Services Plan (see page 6–26), a long-range bison management plan (see page 3–19); and groundwork for a new sewage treatment plant at Old Faithful. Standards for the design of park facilities and their immediately surrounding landscapes are being prepared to guide concessioners, contractors, and park employees in providing signs, walkways, roadways, exhibits, and buildings that are compatible with the park's historic character and resource protection goals.

Program Needs

- ADDITIONAL STAFF AND TRAINING. To support strategic park planning and development, the park needs additional professional staff to facilitate interdisciplinary teamwork and complete necessary documentation of plans and environmental compliance in a timely manner.

PARK PLANNING

STEWARDSHIP GOALS	CURRENT STATE OF RESOURCES/PROGRAMS
Staff are well-trained; knowledgeable of planning, NEPA, and permit requirements; and sufficient to handle up to 30 separate projects in a timely manner to facilitate completion on schedule and within budget.	Staff struggle to keep up with major planning priorities, and generally can handle only a dozen or so projects at a time.
Updated management plans, prepared with public input aimed at achieving broad consensus, guide strategic long-term and issue-specific planning.	A 25-year-old Master Plan guides park planning, while issue-specific plans undergo internal and public scrutiny in an often contentious atmosphere.
Planning and environmental compliance are considered integral to good decision making; staff are regarded as a positive resource available for service to all park constituencies.	Planning and compliance are often viewed as burdensome impediments to decision-making and implementation of management actions.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$213,000
Non-Recurring Funds	
One-time Projects	65,000
Staff	5.0 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Trails and Boardwalks

Yellowstone has 50 miles of frontcountry trails, including 15 miles of boardwalks that are designed to protect both the visitor and the thermal features in the park's most popular geyser basins. The park also maintains at least 950 miles of backcountry trails, many of which evolved from traditional wagon routes, army patrol routes, and dirt roads that had been built for early fire-fighting and other administrative uses. After the fires of 1988, the park decided to eliminate a number of unused or unplanned "social" trails by revegetating these corridors. In 1998, park staff prepared the first long-range plan for trail management.

WALKING THROUGH WONDERLAND

Frontcountry trails and boardwalks. These trails and elevated wooden walkways lead to the park's prime viewpoints. Many of the boardwalks have handrails, and frontcountry trails meet the Uniform Federal Accessibility Standards (UFAS) wherever possible. Because they are heavily used, these trails and boardwalks must be well-maintained; immediate repairs are often required to eliminate safety hazards and protect wet soils and other resources. Trails through geothermal areas often cross unstable ground and must be rerouted as thermal features change and new hot spots appear. Proactive maintenance efforts are hampered, however, by a shortage of staff to complete needed trail repairs and boardwalk replacement.

Backcountry trails. With an average of one worker per 50 miles of trail, the park's trail crews struggle to keep backcountry paths free from washouts and debris flows, remove fallen trees, and repair bridges over creeks, rivers, and perennial bogs. Some trails are difficult to follow because of infrequent use, insufficient trail markers, fire impacts, or their location in large meadows where the trail tread is not clear. Annual trail work falls well below accepted standards and demonstrated need.

Backcountry creeks and rivers are crossed by some 600 to 700 bridges. As outlined in the park's *Backcountry Management Plan* (see "Backcountry Use," page 6–

29), staff will evaluate the need for new and replacement bridges in the wilderness. The structures vary from simple split-log designs to two massive suspension bridges built for pack trains to cross the Yellowstone River in the Black Canyon, which have not been adequately inspected for safety, tightened, or repaired in decades. Each year trail crews are able to inspect about half of the bridges and maintain 200 miles of backcountry trails.

PLASTIC WOOD

For many years an alternative has been sought to the untreated wood traditionally used to construct boardwalks. Untreated wood is generally expected to last only about seven years and often must be replaced sooner in park thermal areas due to the extreme temperatures and corrosive soils. In the early 1980s, the park began using a chemically treated wood that lasts an average of 15 years, but its preservatives contain arsenic, copper, and chromate, making disposal hazardous.

In 1994, Yellowstone began testing a lumber made of recycled plastic that was donated by Unilever Home & Personal Care, USA, as part of its "Recycling at Work" national parks program. With Unilever paying half of the decking cost, this plastic lumber was used to replace the park's largest viewing platform—a 30,000 square foot area in front of Old Faithful Geyser. Although the plastic lumber is more expensive than wood, it is more cost-effective because it is expected to last at least 30 years. In addition, it does not leach chemicals, conveys an important conservation message to visitors, and has prompted inquiries from local schools and businesses.

Program Needs

- PREVENTIVE MAINTENANCE. The frontcountry trails backlog is increasing steadily due to budget constraints. Backcountry trails are less expensive because they are less developed and receive less traffic, but on 750 miles of trail, drainage and erosion control devices are inadequate to preserve trail tread. At least 100 miles of trail have excessively steep grades or traverse wetlands and other sensitive resources; extensive reroutes are needed to protect natural features and archeological sites.

- ACCESSIBILITY. In cooperation with interested advocacy groups, park staff need to continue to inventory trail accessibility factors, including steepness, terrain, elevation gain, and impediments such as stream crossings and narrow bridges. Although the park cannot meet UFAS requirements on most backcountry trails, this information can be used to assist visitors in choosing a trail based on their abilities, and to improve access by removing some impediments.

TRAILS AND BOARDWALKS

STEWARDSHIP GOALS

All trails are constructed and maintained to the highest standard appropriate for the setting, while minimizing adverse impact to resources and visitor experiences.

Visitors are offered a variety of safe, high-quality experiences on boardwalks and frontcountry and backcountry trails.

In keeping with wilderness management objectives, the park promotes universal accessibility on backcountry and front-country trails and walkways.

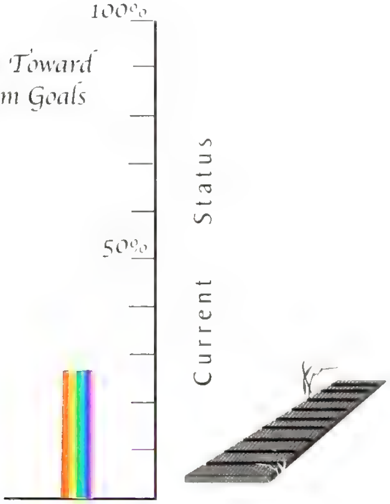
CURRENT STATE OF RESOURCES/PROGRAMS

Existing trails are cleared and maintained as time and staff allow, with priority given to the most commonly used trails; neglect results in extensive damage from erosion and creation of social trails. Haste to keep up with urgent safety and resource problems conflicts with overall backcountry and "minimum tool" objectives.

The lack of a cyclic trails maintenance program hampers safety, visitor-use management, and resource protection objectives in both back-country and frontcountry areas.

Some recent improvements in accessibility of boardwalks and backcountry campsites have been made, but the park lacks a significant program to improve accessibility in front-country or wilderness zones.

Progress Toward Program Goals



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 221,500
Non Recurring Funds	
One-time Projects	$ 180,000
Fee Demonstration Program	$ 251,000
Staff	13.22 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Roads

Unlike the park's current roads, the condition of which has become a focal point of controversy and visitor annoyance, the first formally designed roads in Yellowstone were once a source of pride to the U.S. Army Corps of Engineers and considered visitor attractions in their own right. In the days before large mixing machines, the concrete for the 1903 construction of Chittenden Bridge over the Yellowstone River at Grand Canyon was mixed by 150 men working in three eight-hour shifts and poured in a period of 48 hours. The bridge lasted for 59 years, until it was replaced in 1962, and is still regarded by some as the greatest engineering achievement in the park's history.

The arrival of the first private automobiles in 1915 led to significant changes in how Yellowstone was managed. Spurred by the resulting increase in visitation, the development of a road system was an important part of making Yellowstone and other parks more accessible to the public. When the National Park Service was established in 1916, Stephen Mather, the agency's first director, recognized that cars would jeopardize "the old atmosphere of the Yellowstone." So the NPS sought to provide roads that would enhance the park experience and enable visitors to move through the landscape in such a way that car travel became a means for appreciating the park.

In keeping with this idea, national park roads were often called "auto trails" and intended for low speeds only. But this relaxed mode of travel was superseded by the demand for roads that met higher standards of safety and comfort, a form of progress that continues today as the park's roads are upgraded under the Federal Lands Highway Program.

Yellowstone's road inventory includes 466 miles of road, 310 of which are paved and considered primary roads, with most open to public use at least six months a year, and another 156 miles of secondary paved or gravel roads. About 184 miles are groomed for oversnow use during the winter. The primary roads include 20 miles of U.S. Highway 191 (the Gallatin Highway) along the park's northwest boundary, and 43 miles of the Beartooth Highway leading from Red Lodge, Montana to the Northeast Entrance. Now a designated scenic highway, the Beartooth Highway was completed in 1936 to encourage travel from eastern Montana to Yellowstone, and the park continues to have responsibility for spring plowing and maintenance of the section from the top of Beartooth Pass to the park.

A Grand Loop

According to Philetus W. Norris, who enthusiastically oversaw the construction of many facilities, roads and bridges during his 1877 to 1882 tenure as Yellowstone's second superintendent, "Yellowstone is…one of the largest, most elevated, and mountainous…densely timbered and difficult in which to construct or maintain roads or trails, of all our great mountain parks." In 1878, using $1,000 to hire an assistant and most of his $10,000 annual appropriated budget, he set out with "barometer, compass, field glasses, thermometer…and some 20 well-armed, mounted, equipped, resolute, and reliable mountaineer laborers" to build a road from Mammoth Hot Springs to Swan Lake Flats.

Ultimately Norris was credited with constructing more than two-thirds of the park's loop road system, an enormous figure eight in the heart of the park with 70 miles around the northern circle and 96 around the southern circle, including the 12 overlapping miles from Canyon to Norris junctions. This Grand Loop, which was completed in 1905, still serves visitors making the "grand tour" of Yellowstone, with stops at Tower Fall, the Yellowstone Canyon, Hayden Valley, Yellowstone Lake, Old Faithful and the hot springs of the Firehole Valley, and the geyser basin named in honor of Norris. But the prediction in his 1881 annual report, that the need for appropriations for the construction of roads, bridle paths, and trails "would not be perpetual," missed the mark. An estimated $4+ million per year will be needed to maintain the park roads on a 30-year cycle after the major reconstruction project is complete.

AN UPHILL BATTLE FOR BETTER ROADS

In Yellowstone's early automotive days, travel was hampered by the primitive condition of both the roads and the automobiles, which were often no match for the potholes and steep grades. Motors overheated, brakes burned out, and vehicles sank to their hubs in mud. Although that was an expected part of the adventure for America's pioneering motorists, today's shock-absorbed drivers complain more about the condition of the park's roads than any other aspect of their visit. The safety of the public and the quality of the visitor experience, as well as the economic viability of gateway communities, still depend on a road network that has some very weak links. Repairs and reconstruction must be done exclusively during the summer, which means increased traffic delays and dust in the busiest tourist season. Except for about 25 percent of the main arteries that have been recently repaired or reconstructed, the park's roads are structurally deficient.

- **Age**. Many of the roads were built decades ago over old horse trails and wagon roads. They lack a road base designed for the weight, speed, and volume of modern traffic or for early spring clearing, when the poorly draining subgrade contributes to pavement failure and heaving.

- **Design.** The unreconstructed roads, which vary in width and have narrow or no shoulders, are unsafe for cyclists and pedestrians, who often must travel in general traffic lanes at the mercy of the heavy trucks used to supply visitor facilities, and RVs and buses that may have mirrors extending out 18 inches on each side.

- **Topography.** Curves in the road and heavy vegetation result in short sight distances, making passing difficult and wildlife crossings hazardous. Some pullouts are available for slower traffic, but many have abrupt pavement edges with sharp dropoffs.

- **Terrain**. Many road segments cross or are adjacent to wetlands, geothermal areas, or land slumps and slides where the subgrade and surface deteriorate rapidly.

- **Bridges**. Many of the park's 61 highway bridges have chipped concrete, structural deterioration, and excessive layers of asphalt left from previous repair efforts.

- **Drainage structures**. These must be cleaned and repaired to meet acceptable standards. Some impede trout spawning runs or impair flows from or to wetlands.

A PATCH IN TIMES SAVES LIVES

To prevent small holes from getting larger and to eliminate road hazards, funding for road maintenance is needed in order to keep to a 30-year cyclic schedule:

Crack sealing as needed	$1,500/mile
Surface patching treatment by chip sealing on a 4- to 8-year cycle (50 miles/year)	$15,000/mile
Asphalt pavement overlay on a 20-year cycle (average 15 miles/year)	$155,000/year
Rehabilitation and repair of bridges and retaining walls	$192,000/year
Striping (175 miles a year)	$100,000/year
Ditch and culvert maintenance (average 200 miles/year)	$1,000/mile

YOUR HIGHWAY TAX DOLLARS AT WORK

A major reconstruction project was launched in 1986 under the Federal Lands Highway Program (FLHP), which is funded by the federal gas tax. When the work is completed, most of the park's major roadways will be 30 feet wide, including paved shoulders. Consideration was given to constructing a bicycle path that would parallel the road, but the added value for visitors could not be justified in terms of the large additional expense and impact on the landscape. While the removal of natural biota as a result of road widening is unavoidable, the park has gone to considerable effort to minimize the impact by improving drainage and restoring completed road corridors with native seeds and plants collected in advance from sites that will be disrupted.

The life cycle of a park road. The asphalt pavement structure of a park road should last 30 years or more if properly maintained. This includes sealing, in which a layer of oil and often a layer of chips or aggregate are rolled onto the surface. Sealing is necessary once a new road has cured for two to three years and then every four to eight years. A road also requires shouldering and drainage work every three years and repaving with an asphalt overlay at 15 to 20 years. The cost of properly maintaining a one-mile stretch of road over its expected life is about $1.2 million—after which it is time to replace the road's pavement and base.

Good News for Travelers

Despite the backlog in road maintenance, improvements are being made in Yellowstone and other parks across the United States. Since the onset of the Federal Lands Highway Improvement Program, the roads from the West and South Entrances have been rebuilt and, as of 1999, work is underway to rebuild the East Entrance road and overlay the Northeast Entrance road. These internal park roads link major state highways and gateway communities with the Grand Loop Road, the destination of most park visitors.

On the loop itself, segments have been repaired across the center of the park from Norris to Canyon, along the west shore of Yellowstone Lake, and across Craig Pass from West Thumb to Old Faithful and north to Madison Junction. Reconstruction and repaving are planned for all the park's remaining roads.

Paving the way. Unfortunately, insufficient funding resulted in deferred maintenance and a protracted reconstruction schedule that only increased the difficulty and cost of the work. When the total amount allocated to Yellowstone under the Federal Lands Highway Highway Program (FHLP) for 1997 was only $9 million, it was estimated that at that rate reconstruction would take up to 30 years to complete. Meanwhile, the park's roads were continuing to deteriorate more quickly than they could be repaired or rebuilt, and an unreconstructed road is more expensive to maintain than a new one.

In 1998, Congress reauthorized the FHLP and provided a large increase in road building funds for the NPS. Yellowstone was granted $280 million for an 18-year program to repair its roads in a methodical and economic way.

When the Gates Open

Although roads in the park's interior close to the public in November and cease to be plowed, that allows snow to build up for travel by snowmobile and snowcoach during the park's winter season. Then as the weather permits in March and April, the Grand Loop is plowed open for wheeled traffic again.

Despite years of practice, spring opening in Yellowstone is neither easy to predict nor simultaneous throughout the park; each road is opened when it is ready and not a day before. The goal is to have the South and East entrances open by early May each year, but spring travelers receive extra warnings; Yellowstone's "April showers" are likely to drop snow, not rain, and extend well into months that might be thought of as summer in lower regions of the country. Sylvan Pass and the Lewis River

Canyon are notorious for spring and fall storms, and on the loop, Craig and Dunraven passes open later, by mid- to late-May. The Beartooth Highway, which approaches 11,000 feet in elevation at its highest point, is not targeted until Memorial Day weekend, and some years even that is impossible.

Depending on snow conditions, Yellowstone spends between $285,000 and $700,000 clearing its roads for spring opening and maintaining the 24 necessary vehicles—rotary plows, bulldozers, graders, pickup trucks and one V-plow. About two-thirds of this equipment should be replaced, including six of the rotary plows at an estimated cost of $375,00 to $400,000 each.

In addition to the road openings, about $65,000 is spent each winter to plow snow on the roads that are kept open to wheeled vehicles, and an average of $91,000 just to install and remove the snow stakes that mark the road edge for the plow crews and winter drivers, and purchase new ones as needed.

Program Needs

- Complete road reconstruction. With gas tax revenues providing badly needed funds, the park must proceed with rebuilding well-designed roads that provide safe travel, scenic vistas, and minimal impact on park resources.

- Continued maintenance. The cyclic maintenance program needs sufficient funding, staff, and road maintenance equipment to ensure upkeep of newly rebuilt roadways.

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Although difficult to imagine today, Yellowstone existed as a national park for more than 40 years before the privately owned car became part of its landscape. During that early period, most visitors arrived by train and traveled through the park on horseback or by horsedrawn wagon. Even when cars became available to middle-class Americans, their role in the park's future was by no means obvious. "The popular sentiment of those touring the park is against the admittance of automobiles," Yellowstone's Acting Superintendent warned in his 1914 report. Maybe so, but it was a sentiment that was soon to go the way of the buggy whip. The newly formed automobile clubs lobbied Congress to open national parks to their vehicles, and in 1915 Yellowstone joined Yosemite in permitting private autos. During the next 15 years, as annual visitation rose from 52,000 to 228,000, the proportion of Yellowstone visitors arriving by train dropped from 80 percent to 10 percent.

Attitudes toward the role of private vehicles in national parks have begun to make a U-turn, as once again some people are questioning their impact on the quality of both the environment and the visitor's experience. Zion, Yosemite and Grand Canyon national parks have all developed transportation systems to reduce the negative consequences of too many cars.

ROADS

STEWARDSHIP GOALS

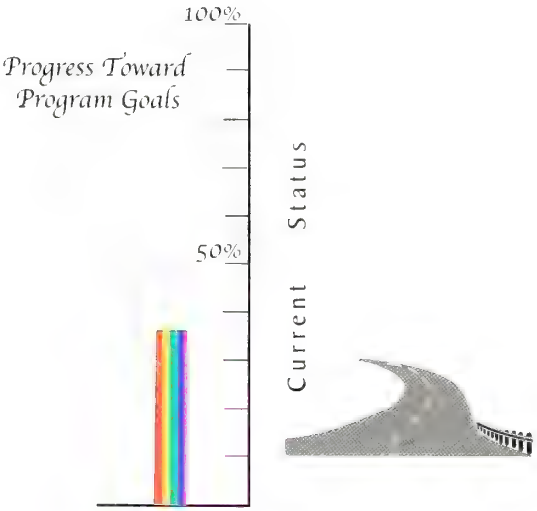
Visitors enjoy safe travel on roads that meet federal highway standards for construction and maintenance of scenic routes.

Design, construction and maintenance of roadways is completed in a cost-effective manner with minimal disturbance to visitor experiences, vistas, and cultural and natural resources.

CURRENT STATE OF RESOURCES/PROGRAMS

In the past decade, several park road segments have been rebuilt or repaved, but many have yet to be repaired, resulting in frequent visitor complaints about the roads and the damage to their vehicles. New construction funds have been promised to address this problem.

Geology, climate, and traffic load make road maintenance costly and time-consuming; traffic delays for road repair frustrate visitors. Road deterioration proceeds more quickly than reconstruction and cyclic maintenance.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 2,298,000
Non Recurring Funds	
Fee Demonstration Program	$ 519,200
One-time Projects	$ 807,000
Capital Improvements	$ 9,000,000
Staff	52.57 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Transportation

Transportation systems in national parks have a major influence on both the quality of visitors' experiences and resource preservation. As Yellowstone's 1973 Master Plan acknowledged, "The park's road system is now overburdened due to the phenomenal growth of automobile travel, for which it was never designed," and "if future demands to visit Yellowstone are to be met, an alternative to the private automobile must be provided." At the time, an optional transit system was proposed that would offer visitors a scenic interpretive overview while traveling from the park boundary to developed areas within, along with complementary secondary roads to popular destinations. In the 1970s and 1980s, mass transportation systems were proposed and even implemented in some heavily traveled portions of national parks such as Everglades, Grand Canyon, and Yosemite.

But while Yellowstone's transportation systems have remained essentially unchanged since 1973, its visitation has increased from 2.2 to 3.1 million per year, and the number of vehicles from 600,000 to 1 million a year. As at many other national parks, both park managers and visitors at Yellowstone have expressed concerns about traffic congestion, accelerated road deterioration due to increased traffic, and the resulting quality of travelers' experiences. Although cyclists may use designated roads that are otherwise closed to vehicular traffic before the spring season opens, bike paths are generally not available adjacent to park roads.

EXPLORING ALTERNATIVES

In 1991, former Wyoming Senator Malcolm Wallop made headlines by suggesting that Yellowstone should consider above-ground tramways such as Disneyland uses to effectively move masses of visitors through its amusement parks. Congress subsequently requested Yellowstone, Yosemite, and Denali national parks to study alternative transportation systems that could: reduce private vehicle travel and emissions while allowing visitors to continue current use patterns and experience a full range of scenic and wildlife-oriented activities; reduce energy consumption; maintain visual quality and sensitive resources; and provide safe and universally accessible travel for users.

Ideas proposed for Yellowstone, as presented in the *Alternative Transportation Modes Feasibility Study, Volume III* (1994), included mandatory or voluntary parkwide transportation systems; a shuttle system connecting park entrance stations to activity centers; a shuttle system around the Grand Loop; and circulation systems within popular areas of activity such as the Upper Geyser Basin/Old Faithful complex. More recent studies have evaluated options for limiting road width and vehicle size on the Dunraven Pass road and the possibilities of "intelligent transportation systems," such as computerized road signs or kiosks that would give park visitors current information on topics such as road conditions and campsite availability. The Idaho National Energy and Environmental Laboratory (INEEL) is working with the park and has begun to analyze its transportation and energy needs to better anticipate the types of vehicles and fuels that will be needed and available in the future. As contracts with concessioners are renewed (see "Accommodating Visitors," page 6–18), Yellowstone hopes to obtain improved transportation systems in the park and possibly to gateway communities.

PARK EMPLOYEES ON THE MOVE

Sharing the roads with park visitors—and adding to the crush and noise of traffic—are park employees. While 40 percent of the park fleet consists of light vehicles (cars and pickup trucks), park staff use a variety of other equipment on the job. Maintenance crews use heavy equipment for road building and other construction, and light equipment such as lawn mowers, snow blowers, and electronic carts to accomplish more local tasks. The "rolling stock" includes about 773 vehicles or other motorized equipment owned by the park; this is augmented on a seasonal basis by another 40-some vehicles leased from the General Services Administration (GSA) or local car dealers. Park staff log an average of 2 million miles in these vehicles each year.

Rangers, resource specialists, and trail crews use motorized and non-motorized boats, mules, horses, and, in recent years, llamas on backcountry assignments. In winter the primary mode of transportation for all employees in the interior of Yellowstone shifts to oversnow vehicles. Helicopter support for fire, rescue, and other operations is provided seasonally (see "Wildland Fire," page 2–29).

An aging fleet. Routine maintenance of the park's motorized equipment by the 15 mechanics on staff and replacement of aging vehicles is a challenge. More than 60 percent of the motor vehicles have logged more than 50,000 miles on their odometers, and 22 percent have passed the 100,000-mile mark; 57 percent of the fleet is more than 10 years old. At least 338 pieces of equipment need to be replaced as of 1999, at an estimated cost of more than $20 million.

Insufficient garage space has meant that some of the fleet sits outside year-round exposed to ultra-violet light, snow buildup, and sub-zero temperatures on exteriors and engines. But the park has made some progress in recent years in building or replacing garages in which vehicles are repaired and stored. Added shelter for emergency vehicles, now available at the West Entrance, Old Faithful, and Mammoth, saves wear and tear and increases their service life.

ON LAKE PATROL

In 1996, the park launched its first new patrol boat for rangers on Yellowstone Lake in almost 20 years. The 32-foot rescue boat, the longest vehicle in the fleet, was purchased using fees collected from park anglers over the course of two years.

Like backcountry and road rangers, Yellowstone's boat rangers, patrol to protect park resources and visitors. They retrieve trash from shorelines, campsites, and the waters of the lake, and take biologists to remote study sites. They contact visitors in tour boats, small crafts, and on shore to answer questions, check fishing and camping permits, and provide warnings about pending storms and other hazards. Alerted by calls on the marine radio band, they rush to respond to reports of visitors in danger on many a windy summer afternoon.

On the water. The water fleet consists of 17 motorized boats that range from 18 to 32 feet in length. The park also has several dozen canoes, kayaks, and dinghies that are used for ranger patrols, fisheries management, and occasional transport of other staff and equipment across Yellowstone or Lewis Lakes for tasks such as maintaining docks, removing trash, and rebuilding trails. In recent years, fishing fees and private donations have enabled the park to purchase five new boats: new patrol boats for Yellowstone and Lewis lakes, two 23-foot work skiffs, and a 19-foot resource operations boat designed to be more environmentally sensitive than traditional watercraft. But half of the watercraft are at least 12 years old and have logged more than 5,000 hours, warranting their replacement.

All of the boats must be removed from the water each fall, but the park lacks adequate storage facilities to protect them from winter weather. Maintenance of boats is irregular and undertaken by vehicle mechanics as time and skills permit, but the watercraft must often be trailered 100 or more miles to be serviced by trained boat mechanics. In 1997–98, the fee demonstration program allocated $90,000 for replacement of 18 unsafe and unsightly docks used by visitors on Yellowstone Lake, but more needs to be done (see "Marine Facilities" page 7-22).

Over the snow. The park owns 108 snowmobiles, many of which are driven an average of more than 100 miles per day by employees and volunteers. Although industry standards suggest a limit of 4,000 miles (and those are more likely lighter-duty "recreational" miles accrued over long years of use), many of the park's snowmobiles are logging well over 5,000 miles before being replaced. To improve maintenance of the fleet, the park now replaces one-third of its snowmachines each year, at a cost that rose from $113,500 in 1992 to $154,000 in 1998. Of the seven snow groomers owned by the park, one must be replaced each year; this expense has increased from $119,000 to more than $153,000 during the same period. Proceeds from the park's annual public auction of surplus equipment provides about $50,000 to help pay for new snowmobiles.

On the hoof. Each year Yellowstone vaccinates, worms, shoes, and trains an average of 100 head of stock to support park ranger, resource management, and maintenance operations. Two horse wranglers assisted by a seasonal employee are responsible for obtaining horses and mules and distributing them throughout the park for work done primarily in summer and fall.

The corral operations are headquartered near Gardiner, Montana, where the corrals and a tool shed need improvement. Many of the park's subdistricts have smaller horse corrals, barns, and sheds to support stock operations. To feed the stock, the park purchases about 225 tons of certified weed-free hay, five tons of hay cubes, eight tons of grain, and one ton of salt, which cost about $370 per animal each year. To contract for the range needed for these animals outside the park during the winter, Yellowstone pays about $15 per head per month. The stock are transported around the park and to and from pastures in four horse trailers and four trucks.

By long tradition, park rangers have used horses to patrol the backcountry; less frequently they ride in developed areas, meeting with visitors and giving horse-lovers photo opportunities. In the last decade, staff have been trained in new techniques for handling horses, making it easier on both horses and riders. The park's best mounted rangers participate in local parades and special ceremonies, such as the dedication of the Museum of the National Park Ranger at the historic Norris Soldier Station in 1991 and the park's 125th anniversary celebrations in August 1997.

DASHING THROUGH THE SNOW

When most of the park's horses have long since been taken to winter pasture at lower elevations, a few intrepid horses and mules stay behind to carry rangers and wranglers on high-priority resource operations.

In the winters of 1995 and 1996, Yellowstone's newly arrived wolves were taken to their acclimation pens on sleds pulled by two mule teams. Then twice a week during the next 10 weeks until the wolves were released, the mule sleds brought their food ration—enough meat to provide 15 pounds per wolf per day. The use of mules rather than snowmachines or people to bear this load meant less stress on the wolves, the staff, and visitors' opportunity to enjoy the quiet of Yellowstone in winter.

In the winters of 1996, 1997, and 1998, horses were needed by the rangers responsible for patrolling the northern boundary, herding bison back into the park as part of the bison management program. A good horse matched with an experienced rider made a difficult operation easier on many a long winter day.

To the job. Yellowstone's emphasis on improving on-the-job safety, energy-efficiency, and cost effectiveness has resulted in exploring alternatives such as employee use of biodiesel-fueled vehicles (see "Greening," page 5–23). In the spring of 1998, employees who commute to work in the park from as far north as Livingston, Montana, initiated a ride-share program using a surplus bus from INEEL. Riders pay a fee which covers the costs of gas and bus maintenance, and participating employees sign up as volunteer drivers. Three newer coaches, also no longer needed by INEEL staff, will be used to replace the original ride-share bus and augment the employee transportation system.

Program Needs

- Cyclic maintenance of vehicle fleet. More trained mechanics and base funding for equipment replacement will put this program on solid footing.

Vehicle Type	**Replacement Criteria**	**Vehicles Needing Replacement**
4 x 4 pickups	5 years/50,000 miles	39
4 x 2 pickups	7 years/70,000 miles	85
Law enforcement vehicles	3 years/100,000 miles	30
Snowmobiles	2 years/5,000 miles	49
Dump trucks, packers	12 years/150,000 miles	58
Loaders, graders, bulldozers	12 years/7,000 hours	60

- Upgrade and maintain boat fleet. The park needs several new fully outfitted patrol boats immediately, and the existing fleet needs to be replaced on a scheduled basis and regularly maintained. The high priority of lake trout control efforts will require an additional specialized boat, equipped for commercial-strength gillnetting (see "Fish and Other Aquatic Resources," page 3–28). There is also a need for an additional boat mechanic to service the fleet on Yellowstone and Lewis lakes.

- Winter stock facilities. The recent increases in the winter use of stock for programs such as wolf and bison management have resulted in a year-round horse operation that requires winterized barns with stalls and a training facility at park headquarters.

- Visitor and employee transportation. Some information is available on visitor trends, expectations, and willingness to participate in alternative transportation systems such as shuttles and one-way routing over major roads, but the cost in both dollars and the difficulty of changing traditional use patterns is intimidating, and the park lacks reliable data about the numbers and trends in the use of bicycles and other alternative transportation such as tour busses. As more parks implement such programs, Yellowstone may need to experiment with resource-sensitive ways to provide mass visitor access and reduce congestion while retaining high-quality experiences.

- Increase use of alternative vehicles. Recent trials with the biodiesel-fueled truck and the "green" boat show promise. Yellowstone needs to make use of these and other new technologies such as electric powered snowmobiles, and park staff require training in the operation and maintenance of such vehicles.

TRANSPORTATION

STEWARDSHIP GOALS

Safe, reliable, convenient, and environmentally sensitive transportation systems provide visitors and staff alternatives to using private vehicles for travel within the park.

Park employees have safe, reliable, and environmentally efficient means of transportation in order to do their jobs.

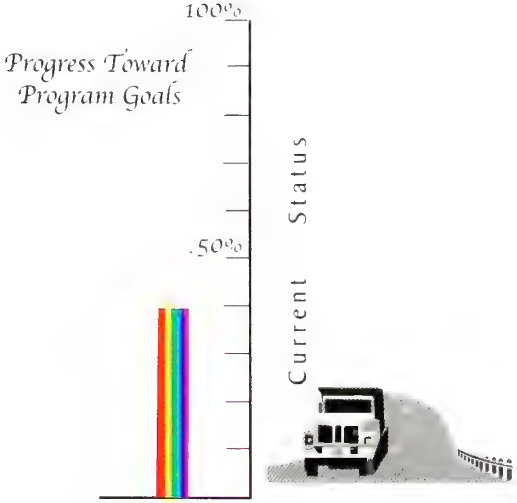
The park has adequate facilities and trained personnel to maintain all modes of employee transportation, including oversnow vehicles, boats, and stock.

CURRENT STATE OF RESOURCES/PROGRAM

Alternative transportation systems are nearly non-existent; several studies have proposed solutions but logistical and funding challenges remain.

57% of the park's 773 vehicles are > 10 years old and in need of replacement within five years; on-the-job accident rates are excessive. New boats are helping park staff traverse the major lakes, but half of the watercraft need to be replaced.

Horse and snowmobile operations are well-maintained despite rising costs; but garage facilities, repair equipment, and vehicle mechanics are insufficient to keep up with maintenance and repairs on aging vehicles and boats.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 1,884,900
Cost Recovery/Special Use Fees	$ 60,000
Non-Recurring Funds	
One-Time Projects	489,000
Staff	17.17 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Buildings and Grounds

More than 1,800 permanent buildings can be found within Yellowstone's boundaries, including 122 portable structures such as mobile homes and movable dormitories. Of these buildings, 800 are operated and maintained by the park's major concessioner, AmFac Parks and Resorts, and another 50 by other concessioners (see "Accommodating Visitors," page 6–18). More than 950 of the buildings are more than 50 years old and must therefore be treated as of potential historic significance unless a formal evaluation determines otherwise (see "Historic Structures," page 4–10).

STILL STANDING AFTER ALL THESE YEARS

Substandard structures. Because of their age and lack of maintenance, many buildings have insufficient insulation, substandard wiring, asbestos, lead-based paint, high levels of radon, pest infestations, failing roofs, and rotten siding. The backlog of work that needs to be done detracts from the appearance of developed and historic areas. This ongoing work and emergency repairs are the responsibility of about 40 skilled crafts personnel who comprise Yellowstone's own cadre of carpenters, painters, plumbers, electricians, and heating mechanics.

Over-extended facilities. Many employees have cramped work areas that are unsuited for the numbers of visitors and services they are expected to handle. Until 1992, South Entrance rangers worked out of an under-sized office in the front of the district ranger's residence. A non-winterized trailer is still being used during the winter as the warming hut at Canyon Village. The same trailer was moved to Grant Village to serve as the backcountry permit office for the summer of 1998 because the Grant Village visitor center had insufficient space for this purpose. Throughout the park, emergency vehicles such as fire trucks, ambulances, and patrol cars, and snowmobiles are without garage space.

Marine facilities. Park visitors can launch their boats at Yellowstone Lake using the Grant Village boat ramp or at the Bridge Bay Marina, where a steel bulkhead "sea wall" creates a harbor that averages 12 feet deep, sufficient for all permitted watercraft. However, the channel entering the lake has silted in to a depth of only about five feet at the low water mark. Dredging has been deferred, but the existing passage provides only minimal clearance for larger touring, sailing, and rescue vessels.

A marina was also completed at Grant Village in the early 1970s, but it had to be closed in 1978 because the bulkheads were collapsing due to faulty engineering. Funds have not been available to either repair or remove the structures, but the associated parking lot has proved useful as a heli-spot, and the boat ramp was being replaced with one at a better location in late 1999.

New navigational buoys have been placed around Yellowstone Lake. The docks that have traditionally enabled boaters to tie up and disembark at Eagle Bay, Plover Point, and Trail Creek have recently been replaced. Park staff used fee demonstration funds to install additional floating dock systems at Frank Island and Wolf Point in 1999. The boat ramp at Lewis Lake is in poor condition and should be replaced.

You are here. As many as 15,000 signs are posted to welcome, educate, and direct park visitors. Most of the rustic wood-routed signs used at visitor centers, concession facilities, and ranger stations are made by a park employee who also produces or orders the metal safety and regulatory signs required along roads and backcountry trails. In 1998, 1,144 new or replacement signs were produced at a cost of about $33,000, not including sign posts, stain, associated hardware, or the labor to install them. Park staff are experimenting with synthetic solid foam as a more durable substitute for wooden signs.

Community buildings. As a holdover from earlier days when employees requiring basic services for their families faced a long hard journey, Yellowstone maintains a chapel that was built by the U.S. Army and an elementary school. More recent additions that benefit the park community are a day care center and small recreational facilities such as weight rooms for employee exercise. Although the school has always been funded out of entrance gate receipts, the other facilities have suffered the same fate as many other park buildings; repair and upkeep of the buildings have fallen short of basic standards for safety and aesthetics.

Recent improvements. Some enhancements to the park's building inventory have been made during the last 20 years, such as rewiring to meet safety codes and improving security systems and energy efficiency (see "Energy, Utility, and Waste Management Systems," page 7–30). Improvements have also been made in offices, workshops, and public facilities around the park. A new combination ranger station-clinic was

GETTING PAID IN SUNSETS

In the traditional NPS culture, employee pay and housing were regarded as somewhat frivolous concerns, almost not worthy of discussion among park staff. The peaceful surroundings and proximity to nature were recognized as the intangible benefits of working in a national park, and the NPS was slow to adapt to changing financial and demographic realities.

By the late 1970s and early 1980s, park workers were setting up employee associations and lobbying for better living and working conditions. Parents wanted easier access to good schools for their children, and long-term employees testified to a deplorable sample of park housing across the country. The requirement to live in government-owned housing, sacrificing the opportunity of home ownership and equity buildup, was also seen as a detriment to preparing for retirement. No longer are park employees willing to "take their pay in sunsets" at the expense of reasonable living conditions for themselves and their families.

completed at Old Faithful in 1995, and the maintenance garage at Mammoth was renovated for conversion into an emergency operations center for vehicles, life-saving equipment, and offices for wildland and structural fire staff.

EMPLOYEE HOUSING

Although Yellowstone and many other older national parks have developed substantial infrastructure over the years, the more recent trend has been toward avoiding unnecessary construction and encouraging employees to live outside the park when possible. However, this is rarely feasible for employees stationed in Yellowstone's interior, and some staff members are required to live near their work station as a condition of their employment. About half of the employees who work in the park headquarters at Mammoth Hot Springs have found private housing in Gardiner, Montana, five miles away; the same is true of those who work near West Yellowstone, Montana. Some employees chose to live outside the park because of the better housing options there, or because of their spouse's job, their children's school, or other conveniences; others must do so because the park does not have enough housing to accommodate all the employees who would like to live there. Agreements with park concessioners call for them to house nearly all of their employees on land assigned to them by the park, or to hire employees who obtain their own housing outside the park.

But the housing options outside the park are very limited. Both Gardiner and West Yellowstone experienced dramatic price increases in the real estate market in the early to mid-1990s, making investment in land or a house difficult for the average park employee; the 1999 rental market in both communities was still characterized by high

costs and limited selection because of competition from the increasing number of other seasonal employees in the tourism industry.

Human habitats in Yellowstone. The park contains 14 residential areas that were established for NPS and concessioner employees. Many of these quarters are historic, built by the army between 1890 and 1915 or by the Civilian Conservation Corps in the late 1930s. Concessions quarters also range from rooms in historic lodges or cabins to newer dormitories, bunkhouses, or employees' recreational vehicles and trailers. A few housing units maintained by the park are assigned to other people working in the park, such as schoolteachers in Mammoth.

As Yellowstone visitation has increased over the years, improving employee housing has had less priority than improving visitor facilities. During the Mission 66 program, completed more than 30 years ago, significant efforts were made to address housing deficiencies, but today only 40 percent of the park's housing units are considered in good condition. Through the 1980s, available funding permitted only "temporary" and often inappropriate solutions—especially an influx of trailers—that have become long-term, high-maintenance, energy-inefficient eyesores.

These old houses. The park maintains 457 housing units for NPS employees, including 101 trailers and transit homes, with an average size of just over 1,000 square feet; 379 of these units are more than 25 years old. The problems with the park's employee housing are therefore many.

- Housing code violations. Many employee residences fail to meet basic health, safety, sanitary, electrical, and building codes.
- Year-round use. Although about 22 percent of the park's housing units were intended for use only by summer seasonal employees, Yellowstone now has longer visitor seasons. Many of the trailers weren't new even when the park acquired them in the 1960s; they are generally uninsulated and in serious disrepair, making them expensive to heat and potentially unsafe.
- Changing demographics. Along with having a larger portion of year-round employees, the park's work force has gotten older on average during the last two decades, making shared living problematic. The staff also includes more employees with disabilities for whom accessible housing and facilities must be provided.

- HISTORIC STRUCTURES. The park has 92 housing units located in 60 buildings that are eligible for National Register listing and therefore need special maintenance and refurbishment to prevent deterioration.
- INSUFFICIENT SUPPLY. Although park and concessioner employee numbers have remained stable in recent years, there are not enough quarters available to meet current needs. Many employees must either commute long distances or accept substandard or crowded living conditions. This affects not only employee morale, but the park's ability to attract and retain a diversity of qualified job candidates, especially for seasonal positions, for which wages are lowest and competition for short-term living space most intense.
- RENT. The rents charged for NPS housing are established under servicewide guidelines that compare rents for similar units in communities outside the park, taking into consideration the condition of park housing and lack of comparable amenities. While these rents have increased over the years, the income falls short of the quarters' maintenance costs.

Home improvements. The attention drawn to infrastructure and housing problems throughout the national park system during the last decade has begun to have an effect. Starting in 1988 Yellowstone received special funds to construct new housing, and within four years plans had been approved that would have the least impact on the park while providing the needed improvements. By 1999, 57 new units for NPS employees (8 single-family, 1 duplex, 9 four-plexes, 1 five-plex, and 1 six-plex) had been built in 10 existing developed areas; construction was underway for two more multi-family units that have been funded. Several of the new units are designed to meet accessibility standards for mobility-impaired residents, and modifications have also been made to some existing quarters. Park concessioners also invested more than $650,000 in new employee housing between 1996 and 1998. While some additional disturbance of the park's natural features has been necessary, it has not been significant overall, and many efforts are made before, during, and after construction to minimize the impacts.

Completion of the most controversial housing plans, for the headquarters at Mammoth, was delayed in the early 1990s by a debate over the appropriateness and need for additional park land to be used for housing and other infrastructure so close to the border community of Gardiner, Montana. In 1997, a revised proposal called for a combination of new housing units in both the Mammoth area and on park land adjacent to Gardiner. However, as a result of a congressionally mandated review of NPS housing policies, at the end of 1999 construction of any additional quarters was on hold pending an independent contractor's assessment of housing needs and alternative means of providing for them. Similar questions exist about providing park housing adjacent to West Yellowstone. The dilemma is that in order to improve the standard of visitor facilities and services Yellowstone offers the public, the park will need more staff—which increases the demand for available housing, whether in or outside of the park.

GROUNDS KEEPING

Although most of the park's vegetation is permitted to grow or die as determined by climate and influences other than human interference, landscaping is done around park buildings for aesthetic reasons, for fire protection, and to preserve cultural landscapes (see page 4–15). In the past decade, the park has promoted more natural landscaping through the use of native, locally collected trees, flowers, and shrubs around the park's office buildings, employee housing, and concession-operated facilities. To support these efforts, the park maintains a small native plant nursery and propagates native seedlings for revegetation of construction sites and roadways.

Park staff are also responsible for maintaining the seven smallest of the 11 park campgrounds, as well as picnic areas and roadside pullouts, including 185 comfort stations and 132 vault toilets. Many of these facilities are dilapidated, and few are accessible to all users. All of the restrooms require cleaning at least daily during the busiest visitation periods. The park spent $209,379 for 30 janitors to clean restrooms, public facilities, and office buildings parkwide during 1998, and $114,714 to pick up litter along roads, boardwalks, and frontcountry trails.

Program Needs

- STRUCTURES. As with other facilities, the park needs to address the backlog of building repairs and secure adequate funding and staff for a cyclic maintenance program. To properly maintain quarters, public buildings, and other administrative facilities requires regular inspection and repair or replacement of:

  - electrical outlets, switches, and panels;
  - boilers, furnaces, and pipes;
  - roofs and floor coverings;
  - building exteriors and interiors;
  - plumbing systems in all buildings, comfort stations, and vault toilets;
  - docks, boat ramps, and other special use structures; and
  - signs and signposts.

- HOUSING. Unless Yellowstone's policy is revised as a result of the service-wide housing review, current plans call for:

  - replacement of 101 trailers and transit homes with single-family and multi-unit structures designed to blend into the park landscape as inconspicuously as possible;
  - remodeling and rehabilitation of existing housing to meet current health and safety standards at an estimated cost of $6.2 million; and
  - construction of 156 additional units with an average size of 1,100 square feet to eliminate overcrowding and provide currently needed housing. This construction would take place over the next 10 to 15 years, if funding becomes available.

- FINDING PRIVATE OPTIONS. One alternative that the park will explore is the development of partnerships with private entities that would encourage investors to purchase existing homes or develop new housing in the gateway communities that could be rented to park employees. This could provide additional housing for employees without creating additional impacts on the park—although there are resource concerns associated with proposed development beyond Yellowstone's borders as well.

BUILDINGS AND GROUNDS

STEWARDSHIP GOALS

Historic buildings and other park structures are maintained in good condition, serving a wide variety of visitor and employee needs.

Employee housing needs are addressed inside and outside park boundaries through partnerships and strategic planning. State-of-the-art construction methods maximize energy efficiency and minimize effects of park housing and construction on visitors and park resources.

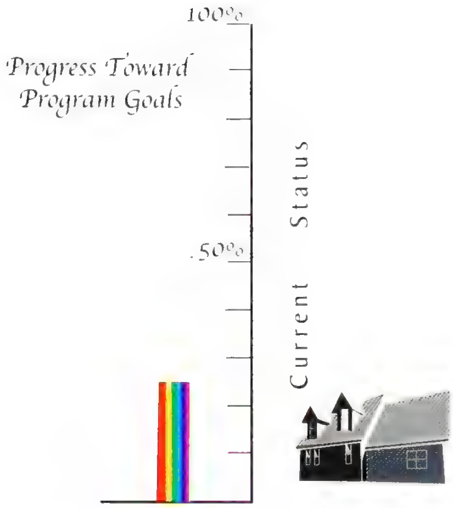
Park grounds in developed areas are clean, attractive, and landscaped using native plants.

CURRENT STATE OF RESOURCES/PROGRAMS

Special project funds permit some high-quality reconstruction of buildings and other facilities, but most structures have deteriorated components that are repaired only when a crisis occurs.

Limited housing options, both in and outside the park, create difficulties in recruiting and retaining qualified employees. Recent housing projects address issues of energy efficiency but the cyclic maintenance backlog indicates unmet needs and a financial liability.

Park grounds are well-maintained but restroom cleaning, litter pickup, and general upkeep are less frequent than desired. Some landscaping with native plants has been done, but non-native species remain from previous intentional and inadvertent plantings.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 3,190,875
Cost Recovery/Special Use Fees	1,245,600
Non-Recurring Funds	
One-time Projects	1,104,000
Fee Demonstration Program Projects	70,700
Capital Improvements (non-Fee Demo)	2,511,000
Staff	70.48 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Energy, Utility, and Waste Management Systems

The park's aging and inadequately maintained infrastructure has become an increasing burden in both dollars and the risk posed to public health and park resources. While progress has been made in improving the park's energy efficiency and reducing its solid waste flow, its water and sewage systems will require major upgrades in the near future in order to prevent a major calamity. An assessment of the park's water and sewage treatment facilities that was completed in 1999 found many items of "high risk," meaning they could cause serious environmental damage if not corrected.

GETTING DOWN AND DIRTY

Yellowstone operates water and sewage systems in 23 areas of the park. As now mandated by state and federal law, these systems require seven-day-a-week staffing by licensed operators located no more than one hour away.

Water treatment. To ensure that the 300 million gallons of water consumed by park staff and visitors each year are safe, surface water or water from underground sources obtained via well or spring-water pump systems is piped through some 605,000 feet of buried lines and treated in a chemical coagulation/filtration system. The four plants in the park are run by 16 certified water/sewer plant operators. The water treatment systems include underground and aboveground storage tanks and four small reservoirs that provide domestic water for the Mammoth and Old Faithful areas. Water production cost $816,000 in 1998. As with the park's buildings, preventive maintenance is minimal, and many of the park's developed areas are served by old, failing water-collection systems. The treatment plant at Old Faithful can barely keep up with the demand in the spring when the water it draws from the Firehole River is highly turbid and requires extensive filtering.

Money down the drain. Built from the 1930s to the 1950s, the park's 855,000 feet of water and sewer lines have not been replaced as needed and are therefore subject to liquids leaking in or out of the pipes. The clay sewage lines in the Old Faithful area, many of which go through thermally altered ground, may once have been state-of-the art, but they aren't any more, and the water lines sometimes emit steaming water. The high mineral content of the water at Old Faithful and Norris eats holes through the pipes. Water leaks of up to 15,000 gallons per day have become commonplace in the park, in some cases costing hundreds of dollars per day in the loss of treated water.

Sewage spills. The park's 26 sewage treatment systems include septic tanks, trickling filters, aerated lagoons, and activated sludge systems that handle 270 million gallons a year. As a result of increasing volume as well as employee training and other health and safety requirements, sewage treatment costs jumped from $341,231 in 1992 to $845,000 in 1998. Yet many of the systems are worn out and could fail at any time, including the plant at Old Faithful. Since 1988, the park has experienced an average of one major spill per year; four major incidents occurred in 1998 in which raw or partially treated sewage was discharged into water courses, and at least three other spills were caught before the sewage reached water or wetlands.

Final effluent from the plant serving the Madison area is pumped to a lagoon with no emergency storage; power failures have many times sent sewage to a nearby wet meadow—only luck and vigilance have prevented it from reaching the Madison River into which the meadow drains through a culvert. Of the four plants in the Norris area, the one at the geyser basin has been out of service for five years because sewage was running out of the mounds; during power outages or pump failure, sewage from a pump station backs up to a tank and then overflows to a meadow by the Gibbon River. The sewer system at Tower Fall is a septic tank and leach field that is on the verge of failing as a result of overloading.

Recycling and refuse disposal. About 2,634 tons of solid waste were generated in the park in 1998 —1-3/4 pounds for each visitor and employee. Refuse from park concessions, campgrounds, and picnic and housing areas is collected from one to three times a day from April through September and sent daily to three transfer stations, from where it is trucked out of the park for disposal. By agreement with Park County, Montana, Yellowstone maintenance crews also collect trash from Cooke City, with the county paying its share of tipping fees at the disposal sites. During the winter in the park interior, solid waste must be held in storage containers until the roads open in the spring.

RECYCLING PAYS OFF

By recycling paper, cardboard, glass, and aluminum, Yellowstone and its concessioners diverted nearly 400 tons (more than 12 percent)of its solid waste stream in 1998. Some of the glass is recycled as "glassphalt" that has been used for paving in the park, including the parking lot at Mud Volcano; the rest is taken to cement plants or used for road base. Making recycling more convenient for visitors is a challenge yet to be overcome; unstaffed centers could attract bears and other wildlife.

The Headwaters Cooperative Recycling Project, a partnership with nine adjacent counties in Montana that began in 1997, provides a specially designed truck to collect and transport aluminum, steel, and newspaper to recycling centers. The project area includes 45 small communities and rural areas which have more than 90,000 residents and visitors. The project is intended to save participants hauling costs as well as tipping fees, and eventually reduce the amount of acreage needed for landfills in greater Yellowstone.

The park's disposal costs have risen from $14 per ton in 1982 to $86 per ton in Park County in 1999, and from $81 to $115 per ton in West Yellowstone, Montana, in just the last five years. But despite increasing visitation, recycling has enabled the park to keep the amount of material going to landfills and incinerators somewhat stable. Park employees can recycle batteries, motor oil, used paint thinner, and materials such as glass, aluminum, tin cans, cardboard, office paper, and newsprint.

Composting. With the goal of reducing the solid waste that must be removed from the park by up to 75 percent and reducing costs by up to $50 per ton, Yellowstone has developed a partnership with counties in southwestern Montana to consider construction of a composting facility outside the park. The U.S. Department of Energy provided funding for the feasibility study which was completed in 1997; with assistance through cooperating partnerships, a composting facility is expected to be operating by the end of 2000.

Hazardous materials disposal. Historically, materials of all kinds were dumped in the park's own landfills and subsequently buried. As a result, occasional leaching of unknown substances now has the potential to damage park resources and violate state and federal laws. Because their contents are unknown, more than a hundred 55-gallon barrels have had to be treated as if they contained hazardous wastes, at a cost of $750 per barrel for analysis and $500 for disposal. Handling of hazardous materials also requires special training and equipment for park staff.

Energy efficiency. One of Yellowstone's biggest environmental challenges is to provide reliable, cost-efficient electrical power to remote areas without causing adverse impacts. In 1982, the park's electric bill totalled $226,000; by 1997 it exceeded $960,000. Montana Power Company provides electricity to most of the park, including standby generators at four locations; four of the entrance stations are served by other utility companies. The park generates its own power at four locations and provides emergency standby power to smaller areas and to sewage lift stations.

Park buildings use a variety of heating systems; their primary heat source may be oil, propane, electricity, or wood. Since 1996, the park has used Department of Energy grants to replace inefficient fuel-oil furnaces with cleaner propane heating units for offices and employee residences. Grants from the U.S. Department of Energy have also been used to improve insulation and install double-paned windows at 13 park buildings including visitor centers, maintenance shops, and portions of park headquarters. In 1997, a noisy generator that had been powering the Lamar Ranger Station/Yellowstone Institute complex was replaced with a photovoltaic electrical system, the first of its kind in Yellowstone. Solar energy is now used to power the system 70 percent of the time on a yearly basis, with a propane generator used as the backup. Similar systems are planned to replace existing generators in other outlying areas such as the Lewis Lake and Bechler ranger stations.

Fuel storage. Nearly all of the 224,318 gallons of gasoline and 144,806 gallons of diesel the park bought in 1998 to keep its vehicles running is stored in underground tanks. When larger than 1,000 gallons, such storage tanks are now subject to state regulation and reporting requirements. Since 1989, the park has brought all of its 114 regulated tanks into compliance, replacing them when necessary with new double-walled tanks and remediating any contaminated soil. However, the park also has about 150 smaller tanks located below and above ground, including many used to store heating fuel. About half of these tanks have been replaced with newer models that provide secondary containment, overspill protection, and hydrocarbon detection, but the remainder are apt to be either leaking or likely to do so in future because of their age and deterioration.

Program Needs

- Upgrade infrastructure. Like the park's roads and buildings, utility systems require major reconstruction to bring them up to standard and sufficient funds to prevent a return to the deterioration that occurs without an ongoing program of cyclic maintenance.

- Water and sewage treatment. Construction of a new sewage treatment plant is scheduled to begin at Old Faithful in 2000, but funds must be obtained to upgrade or replace systems as needed to meet legal requirements and projected demand. Water treatment systems must also be repaired and regularly maintained to standards. Water pipes, sewer lines, hydrants, and manholes need to be regularly inspected, cleaned, and exercised to ensure that they will operate properly when needed. Cyclic replacement of equipment should occur on a scheduled basis.

- Fuel storage. Funding is needed to replace faulty tanks so that the leaking and waste of stored fuel is prevented.

- Additional staff. Added staff are needed to maintain the park's utility systems, increase composting and recycling efforts, and track the park's compliance with laws, regulations, and safety procedures needed to ensure a healthy environment for the park's resources, visitors, and employees.

UTILITY SYSTEMS

STEWARDSHIP GOALS

The best available technology is used in the design, construction, operation, and cyclic maintenance of park buildings and utility systems.

Utility systems operators are professionally trained and provided with necessary equipment and support to ensure their safety on the job.

The park complies with all local, state, and federal regulations relating to utility systems and meets or exceeds standards designed to ensure human safety and resource protection.

The generation of solid waste is minimized, and where its creation cannot be eliminated, solid waste is reused whenever possible.

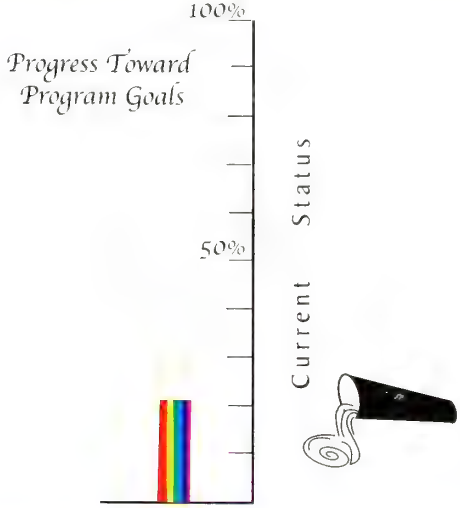
CURRENT STATE OF RESOURCES/PROGRAMS

Generous grants have helped the park retrofit some buildings for energy efficiency and improved operation, but hundreds more structures need similar work as energy costs increase. Water and sewer lines lack regular maintenance and often leak.

Operators are well-trained and safety alarm systems are in place.

Sewage treatment systems at Old Faithful, Norris, and Madison are outdated, and the State of Wyoming cited the park for a sewage overflow into Yellowstone Lake in July 1998. Underground fuel storage tanks have been replaced to comply with federal regulations.

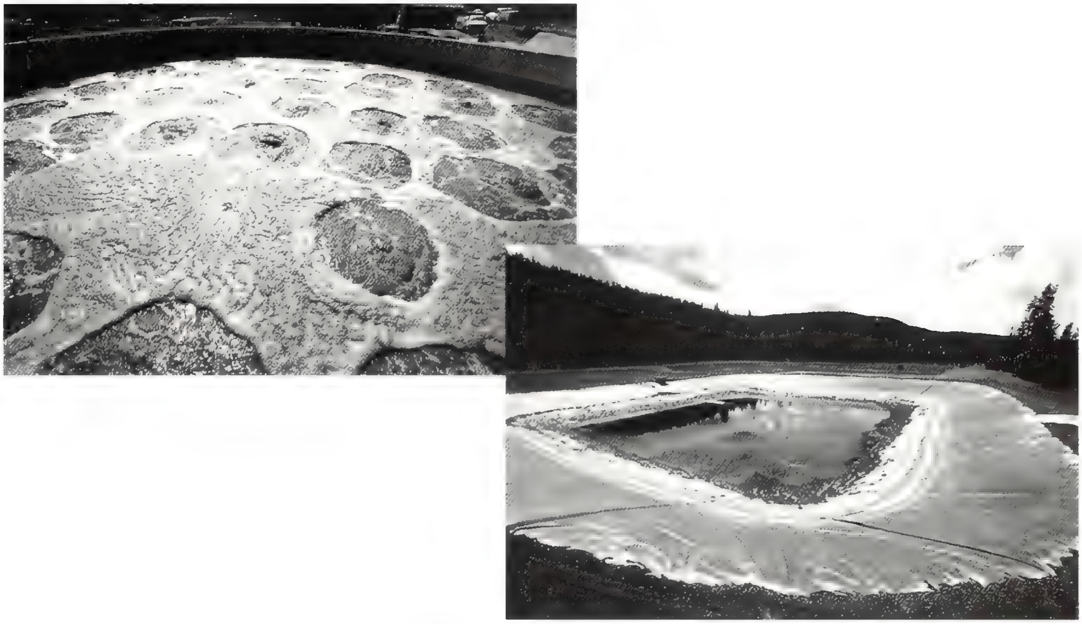
Recycling has reduced the park's waste stream 15% since 1994, and regional programs initiated or supported by the park have the potential to decrease the quantities and costs of managing solid waste.

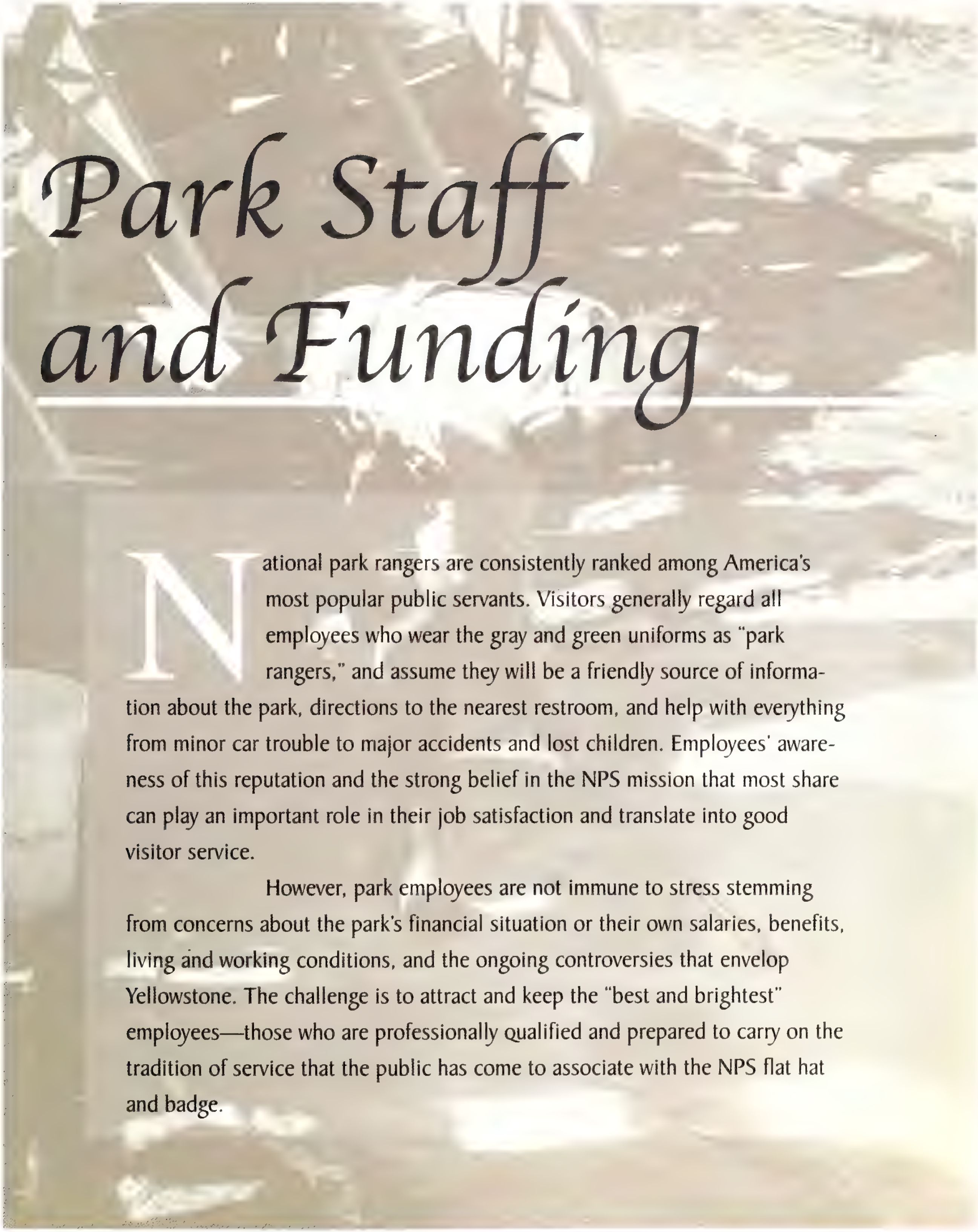


1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 482,800
Cost Recovery/Special Use Fees	$ 1,400,300
Non Recurring Funds	
One-time Projects	$ 190,000
Fee Demonstration Program	$ 42,000
Staff	38.29 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.





Park Staff and Funding

National park rangers are consistently ranked among America's most popular public servants. Visitors generally regard all employees who wear the gray and green uniforms as "park rangers," and assume they will be a friendly source of information about the park, directions to the nearest restroom, and help with everything from minor car trouble to major accidents and lost children. Employees' awareness of this reputation and the strong belief in the NPS mission that most share can play an important role in their job satisfaction and translate into good visitor service.

However, park employees are not immune to stress stemming from concerns about the park's financial situation or their own salaries, benefits, living and working conditions, and the ongoing controversies that envelop Yellowstone. The challenge is to attract and keep the "best and brightest" employees—those who are professionally qualified and prepared to carry on the tradition of service that the public has come to associate with the NPS flat hat and badge.

A Dissenting View

"...The best thing the Government could do with Yellowstone National Park is to survey it and sell it as other public lands are sold...it is very rapidly assuming troublesome and elephantine proportions...Ten thousand dollars has already been spent in laying out roads that nobody uses. Last year we appointed a superintendent at an expense of $2,000, and this year the appropriations are $40,000. There is to be a corps of assistants to stay there summer and winter to look after the spouting geysers, to see that patent medicines are not advertised on the cliffs, that timber is not cut down, and that the noble game is not excluded from those preserves...

I do not understand myself what is the necessity for the Government entering into the show business in the Yellowstone National Park."

— U.S. Senator Ingalls of Kansas, debating funds and protection for Yellowstone, March 1, 1883

Changes in the demographics of the workforce and trends toward corporate downsizing, decentralizing governmental decision making, and balancing the federal budget, as well as balancing work and family priorities—all these have clashed with the somewhat militaristic traditions of the NPS. The pool of applicants, and the housing, work space, and benefits needed for park employees have changed, as has Yellowstone's visitor population. What was once mostly a summer park staffed by an influx of students and teachers now receives a growing number of visitors for eight or nine months of the year.

Park managers have had to figure out ways to keep Yellowstone functioning smoothly for this longer visitation season while at the same time coming under pressure to make do with fewer employees and appropriated dollars. Spending an inordinate amount of time looking for creative solutions to fiscal problems, park managers have been frustrated at the lack of funding to invest in their human capital. Although Yellowstone appears to continue to provide a worthwhile experience for most visitors, the morale and dedication of employees is waning, which affects their ability to protect park resources and keep the visitors satisfied.

The day-to-day work of looking after the park's resources and visitors is, of course, not solely borne by NPS employees. Concession personnel, park volunteers, service organizations, and other benefactors assist those on Yellowstone's payroll by providing funds, workers, equipment, and other valuable support for park programs.

Partners in Park Preservation

National parks have a long tradition of working with non-profit organizations that help park staff carry out their visitor service and resource preservation missions. While Yellowstone has always gained from the beneficence of generous supporters, the park's current fiscal situation compels a stronger effort to persuade those who care about Yellowstone to help protect, enhance, and restore park resources through public and private partnerships. While employees have historically seen themselves as isolated guardians of the nation's most precious park resources, the fostering of cooperative relationships with neighboring communities, governmental agencies, and corporations who also value park goals and values receives increased emphasis today.

YELLOWSTONE'S COOPERATING ASSOCIATION

YELLOWSTONE ASSOCIATION

Since its inception in 1933, the Yellowstone Association has provided more than $6 million to benefit the park's resources and visitors by supporting educational and scientific programs. "YA" raises funds through sales of educational materials in park visitor centers, a membership program, and donations received from corporations or individuals who wish to support specific projects. Membership in the Yellowstone Association, which has grown greatly in recent years, reached the 10,000 mark in August of 1999.

The Yellowstone Association also provides staff who work with uniformed rangers and park volunteers to provide visitor information and other assistance in the visitor centers and museums. Future plans call for upgrading the bookstores in the Old Faithful and Canyon visitor centers to encourage more visitor education and exploration of Yellowstone.

The Yellowstone Association Field Institute provides in-depth learning experiences about park resources and issues through one- to five-day courses which are generally held at the historic Buffalo Ranch facility in the Lamar Valley. In 1998, when the Institute offered nearly 100 classes in which more than 900 people participated, it received an award from the Association of Partners for Public Lands for the best personal services interpretive program offered by a national park cooperative association.

SUPPORT FROM THE YELLOWSTONE ASSOCIATION

In 1998, support from the Yellowstone Association for the park's interpretation and education programs included:

- $85,800 for 24 new museum and wayside exhibits in the Madison and Old Faithful areas;
- $66,000 for self-guiding trail booklets at popular visitor attractions;
- $58,300 toward the printing costs of *Yellowstone Today*, the newspaper distributed at the park's entrance gates; a special supplement on the 1988 fires; and *Yellowstone Science*, a quarterly magazine devoted to natural and cultural resources;
- $30,000 for projects such as new benches for seating at visitor centers; and
- $15,000 to the park library to help pay for staff and purchase books.

The Association provided a total of $308,000 in financial support in 1998, including its contribution toward a two-year project to develop new exhibits on predator-prey relationships for the Albright Visitor Center at Mammoth, preservation of historic photographs, and infrastructure improvements at the Yellowstone Institute in Lamar Valley. The Association also facilitated additional park support through gifts from other donors for specific science, history, and educational projects.

INDIVIDUAL AND CORPORATE DONORS

Yellowstone is grateful for the tangible support given by many individuals, from the small out-of-pocket contribution made at a visitor center to the five-figure check offered by a generous benefactor.

Individual contributions. In addition to the $12,000 to $15,000 annually put in donation boxes throughout the park, some park supporters have contributed money to be used for specific purposes. Anglers and fish-watchers have added thousands of dollars to the Yellowstone Fisheries Fund, which supports native fisheries restoration efforts. Children, their families, and school groups contributed $5,000 after the 1988 wildfires which was used to construct a boardwalk and provide interpretive displays about the natural recovery of the forest along a children's fire trail. Donors have contributed more than $250,000 to the Yellowstone Wolf Recovery Fund since 1995, the year that wolves were returned to the park.

Park patrons. One of Yellowstone's most munificent patrons has been Chip Davis, president of American Gramaphone and producer of the musical group, Mannheim Steamroller. Since 1989, he has donated to Yellowstone more than $550,000 in proceeds from the group's concerts and sale of CDs and cassette tapes. By encouraging other donations, these benefit concerts have generated an additional $10,000 from other corporations and individuals. The account set up for these funds, which has also grown through interest earnings, has been used to support a variety of projects including backcountry trail restoration, recycling efforts, and special museum exhibits.

Yellowstone's other corporate donors include Canon, U.S.A., Inc., which provided equipment and funds to study grizzly bears and print park publications; Diversa, Inc., which provided laboratory analysis of wolf DNA to identify the lineage of Yellowstone's packs and their genetic relationship to other wolf populations in the U.S.; and the Environmental Systems Research Institute, Inc. (ESRI), maker of GIS computer programs such as ArcInfo and ArcView, which donated software and training to help park staff map resources and make spatial information available to researchers and other users. Yellowstone has a long-standing relationship with Unilever Corporations, which has contributed funds in support of scientific conferences on park issues, and donated recycled material for boardwalks around Old Faithful Geyser, and is the lead grantor in the effort to fund a new Old Faithful Visitor Center.

YELLOWSTONE PARK FOUNDATION

A new foundation was created in 1996 to help generate private support to preserve, protect, and enhance Yellowstone's resources and enrich each visitor's experience. A generous grant of $200,000 from Conoco, Inc. got the Yellowstone Park Foundation off to a strong start. During its first three years, the foundation has received more than $1.2 million to support park projects, including:

- $39,500 for development and interpretation of a self-guiding Fort Yellowstone walk;
- $36,500 toward restoration of westslope cutthroat trout;
- $15,000 toward conservation treatment of a horse-drawn Shaw & Powell buggy, used to transport park visitors to their tent camps between 1898 and 1916;
- $15,000 to support production of the new bison exhibit at Canyon;
- $9,250 for exhibits on microscopic life forms associated with park thermal features;
- $3,500 for the first complete aerial survey for beaver in Yellowstone; and
- $2,500 for a report on bioprospecting in Yellowstone.

A Sampling of Benefactors

Foundations, corporations, and organizations that have recently made major contributions to one or more park programs include:

- Advanced Telemetry Systems, Inc.
- Amfac Parks and Resorts
- Canon, Inc.
- Conoco, Inc.
- Diversa, Inc.
- Environmental Systems Research Institute, Inc.
- Hamilton Stores, Inc.
- Helicopter Wildlife Management, Inc.
- The Idaho National Engineering and Environmental Lab
- Landis Wildlife Films, Inc.
- Mill Pond Press
- The Montana Trout Foundation
- The National Fish and Wildlife Foundation
- The National Park Foundation
- Nikon, Inc.
- The Northern Rockies Conservation Cooperative
- The One-Fly Foundation
- The Order of Moose
- The Pew Charitable Trusts
- Telonics, Inc.
- Tocad America, Inc.
- The Trout and Salmon Foundation
- Trout Unlimited-Coldwater Conservation Fund
- The Turner Foundation
- Unilever Corporations of America
- The Wolfstock Foundation
- The Wolf Fund
- Woods Electronics, Inc.
- The World Foundation for Environment and Development
- The Yellowstone Association
- Yellowstone Ecosystem Studies
- The Yellowstone Grizzly Foundation
- The Yellowstone Park Foundation
- The Yellowstone Wolf Recovery Fund
- Yellowstone Park Service Stations

Other Types of Partners

Yellowstone benefits from many cooperative relationships that are not primarily financial. The park's library, which is open to the public but used primarily by park staff, obtains reference materials through interlibrary loans with other larger facilities. Most of the research conducted to learn more about the park's resources is carried out by scientists affiliated with other institutions (see "Learning From Yellowstone," page 5–2). Some of these universities and government agencies have established formal cooperative agreements with the park which facilitate sharing of vehicles and laboratory equipment, and the assistance of student interns. Adjacent counties and communities have mutual aid agreements with Yellowstone to coordinate the response by trained professionals to fires, medical emergencies, and law enforcement situations in and outside the park (see "Protecting Visitors," page 6–48).

The ongoing support of many types of benefactors—individuals, corporations, a host of non-profit foundations as well as local and regional neighbors with common interests—will continue to be needed as Yellowstone seeks creative ways to advance its provision of public service and resource conservation.

The Yellowstone Workforce

The United States has changed in many ways since Horace Albright advertised for park rangers by asking for "Big Men with Fine Personalities." These days, government agencies are expected to reflect the nation's diversity, and Yellowstone's desire to achieve more diversity among its workforce is motivated not only by the force of anti-discrimination laws, but by a belief that employees of varied backgrounds can better address the needs and interests of a variety of visitors. Yet ideally Yellowstone employees will embody not only the range of visitors who visit the park in person, but all Americans whom Yellowstone has the potential to reach in any form—on the ground, in print, through cyberspace.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE.
OLD FAITHFUL
RANGER STATION
INFORMATION SERVICE. FILE COMPLAINTS HERE.

WANTED: BIG MEN WITH FINE PERSONALITIES

..."a ranger can be sure of 75 days employment...The pay is $100.00 per month...The successful applicant must...furnish his own clothes...He must bring his own bed...

We want men who are mature in appearance. We prefer men of 25 to 30 years of age...The ranger is primarily a policeman, therefore he should be big in frame...We always prefer big men...If you are small of stature, better not apply.

The ranger must be...tactful, diplomatic, and courteous; he must be patient. If you are not possessed of such characteristics, please don't apply...

We want big men with fine personalities, and experience in the out-of-doors in riding, camping, woodcraft, fighting fires, and similar activities....Rangers must rise at 6:00 a.m...and must retire not later than 11:00 p.m....[he] may even be called from his bed for emergency service...he is not paid for services rendered in excess of an 8-hour period.

Remember there is no vacation in the work, and mighty little money..."

— From a 1926 letter to applicants from Horace M. Albright, Yellowstone Superintendent

The People Behind the Scenery

Park visitors often associate park employees with the "Smokey Bear" hat and regard all uniformed personnel as "rangers." But during the peak summer season, Yellowstone's staff also includes more than 300 maintenance employees—engineers, landscape architects, mechanics, electricians, plumbers, carpenters, painters, heavy equipment operators, water and sewage treatment plant operators, supervisors, and general laborers. These men and women paint, wire, and repair park buildings. They keep the lights on. They fill the potholes, clear the culverts, repair the trails and sidewalks, pick up the trash, clean the toilets, and are responsible for a vast array of vital but largely behind-the-scenes "dirty work."

Other behind-the-scenes staff keep the park's communications systems working and the necessary supplies coming in. They lead, cajole, and in some cases, drag the park into the 21st century of geographic information systems and electronic information transfer. In what some consider the real information hub of the park—the mail room—employees are kept busy making copies, transmitting faxes, and distributing the mail to and from park offices. Administrative staff process the paperwork needed for an employee to get a job, a performance evaluation, and a paycheck.

Their contributions may not seem as glamorous as tracking wolves or digging up archeological sites, but they are the ones to call when the plumbing backs up, the heating system breaks down, or the computer won't work. The support staff—and the facilities, supplies, and equipment they maintain—make it possible for the rest of the staff to explore, study, protect, and serve the visitors and resources of Yellowstone.

Who's Minding the Park

The NPS uniform is now worn by both male and female employees representing a broader range of ages, ethnicity, beliefs, academic backgrounds, and professions than in Horace Albright's day. "Rangers," the most familiar of national park employees, now usually have specialized training in a particular field such as visitor protection, interpretation, or natural or cultural resource management. The park's maintenance employees, who frequently work in public view wearing the NPS gray and green, often find themselves answering visitor questions and providing front-line assistance. Other employees are responsible for planning, public affairs, concessions management, computer support, and other administrative functions.

A too-uniform park staff. Yet despite the broad range of skills needed of a national park staff, and the abundance of women now to be seen in the NPS gray and green, employees at Yellowstone and many other parks cannot be said to represent a broad spectrum of racial or cultural origins. Yellowstone has few minority employees with permanent status in any job category or division, and none in upper level management jobs. Only in the last five years has there been a female division chief or assistant in a position other than those commonly held by women. Yellowstone's first female chief of interpretation was hired in 1998, joining two female and four male division chiefs; the park's senior positions are still occupied by white males in proportions far larger than can be found in the U.S. workforce in general or the NPS in particular. Voluntary self-reporting by 375 employees at Yellowstone indicates that 62 percent are white males, 35 percent white females, and only 3 percent minorities of either sex.

With an adequate supply of job applicants usually eager to work at Yellowstone in most occupational fields, until recently the park's efforts to recruit candidates of any type have been limited. However, in 1998 several park employees made recruiting trips to selected colleges which have a large percentage of minority students. In order to encourage the hiring of minority candidates, the NPS can waive the customary job posting and competitive application process for entry level positions. As a result of these recruitment trips and other efforts, Yellowstone did increase the number of females and minorities hired for the 1998 and 1999 summer seasons.

Mapping out a career track. The NPS made great strides in increasing the number and training of professional staff in several important areas during the 1980s. More than 200 natural resource management specialists participated in a service-wide training program, some of whom trained in or accepted permanent jobs at Yellowstone. A proposed parallel cultural resource training program never materialized, but Yellowstone has added three specialists to this branch since 1989. Another service-wide initiative, the Ranger Careers program, boosted the average grade of NPS rangers in protection and interpretation across the nation from GS-5 ($21,800 annual starting salary in 1999) to GS-9 ($32,000). Other career programs designed to increase the professionalism of the NPS workforce include Resource Careers, Administration Careers, and an Intake Program. A minority trainee from New York City participating in the Intake Program with a specialization in computers has been at Yellowstone since August 1998.

Volunteers in parks. Like many national parks, Yellowstone has increasingly come to rely on the assistance of volunteers to help fill the gaps in its own workforce and budget. During 1998 at Yellowstone, 294 people contributed a total of 55,800 hours of volunteer work. This included answering visitors' questions at information desks, serving as campground hosts, and collecting and analyzing data for resource managers and researchers.

Unfortunately, the park must turn away more than 2,000 offers of assistance each year, primarily because of the lack of housing and support funds. Although many potential volunteers are prepared to live in their own travel trailers or recreational vehicles, the park does not have trailer pads to accommodate them. In addition to housing, the park also tries to provide a small daily stipend to help pay for food, but only $10,000 was available for this purpose in 1999.

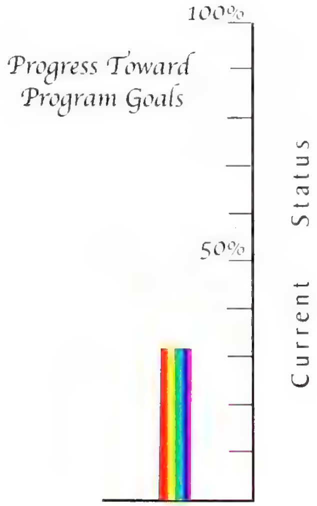
Program Needs

- Improve workforce diversity and professionalism. The goal of increasing the number of minority employees in permanent positions at Yellowstone requires a commitment to diversity that can only be achieved when senior managers are willing to devote time to this issue. Based on the recruiters' experience, Yellowstone needs to target potential candidates and select interns from diverse populations, educate them about the NPS and Yellowstone's resources and mission, and improve the support system—including transportation, recreational opportunities, and mentoring—so that new hires feel welcome in the park. A recurring budget for supplies and travel would bolster the fledgling recruitment program aimed at increasing workforce diversity. Funding is also needed to provide continuing education and training for Yellowstone's long-term career professionals.

- Increase volunteer support. To make better use of the available volunteer assistance, the park needs additional employees to oversee volunteer workers, and housing and funds to cover their basic living expenses.

STAFF DEVELOPMENT

STEWARDSHIP GOALS	CURRENT STATE OF RESOURCES/PROGRAMS
Yellowstone's employee population reflects the overall diversity of the civilian labor force.	Yellowstone is working to recruit a greater diversity of job applicants, but the diversity of its staff remains well below that of the U.S. population.
Yellowstone has enough professionally trained staff to fulfill the park's mission: to conserve the park's resources unimpaired for the benefit and enjoyment of future generations.	Park staff often fail to meet acceptable standards for visitor service and resource protection because of heavy work loads and limitations in training, equipment, and other support; progress has been made in professionalizing the ranger workforce, but other career programs have been hindered by lack of funding.
Volunteers with a variety of talents and skills have the opportunity to make a valuable contribution to Yellowstone in assisting visitors and protecting resources.	Volunteers make an important contribution to park programs, but many skilled applicants must be turned away because of insufficient infrastructure and supervisory support.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$ 10,000
Non-Recurring Funds	
One-time Projects	$ 11,000
Staff	1.5 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

Safety on the Job

The environment at Yellowstone poses unusual risks for many of its employees. Providing for the enjoyment and safety of park visitors requires that rangers patrol roads during all hours of the day and cross backcountry rivers to evaluate trail access and determine safe places for visitors to ford. Maintenance workers may be exposed to hazardous materials and conditions as they keep the roads maintained and the utility systems operating. Employees cutting down trees, fighting fires, and handling animals for research or management purposes face a wide range of hazards. Even routine travel around the park can turn dangerous in blizzards and subzero temperatures.

While Yellowstone tends to attract employees with can-do attitudes who enjoy the challenge of difficult work in harsh environments, the NPS culture can itself create unrealistic expectations about what employees can and should be able to accomplish. When combined with financial pressures to do more with less, increased park visitation and work loads, a difficult physical environment, a failing infrastructure, and distance from medical facilities, such expectations can produce potentially dangerous working conditions.

INTEGRATED SAFETY MANAGEMENT

An accident-prone park? Compared to other government agencies, the National Park Service has a poor employee safety record, and Yellowstone's has been even worse. While the accident rate among Yellowstone visitors appears to lie within the expected range, the annual rate per 100 employees has been 16 to 18 percent during the last seven years; the NPS average is 6.7 percent. In the private sector, even those industries involving relatively hazardous occupations such as mining or oil and gas extraction, accident rates generally fall below 6 percent. Since 1994, Yellowstone has had an annual average of 62 on-the-job accidents that required employees to receive medical attention, and workers' compensation claims have cost an average of $563,000 a year. Since 1992, six people have died in work-related accidents—four NPS employees and two visiting researchers—each a tragedy for Yellowstone. Three of these fatalities resulted from backcountry avalanches; two others occurred while rangers were patrolling familiar ground in hazardous conditions, one on snowmobile and one kayaking on a backcountry lake; and one maintenance employee died while testing a snowmobile.

A wake-up call. For many years, Yellowstone's safety program was generally regarded as the responsibility of the safety officer rather than of individual managers and employees, and it focussed on reacting to specific accidents and workplace hazards rather than on a continuous effort to improve the safety of work practices and conditions. Then in a 1997 review conducted by the Occupational Safety and Health Administration (OSHA), Yellowstone was cited for 600 violations, 93 of which were considered serious, and many of which demanded immediate correction. Most involved similar infractions occurring in different park locations—180 cases of frayed electrical cords, improper grounding, or improper extension cord usage; 97 fire extinguisher violations; 95 blocked or unsigned exits; and 84 machines without proper equipment guards or anchors. But the OSHA inspectors also perceived an attitude among staff at all levels that working in the park was inherently risky, and that park managers were not attentive to safety relative to other work priorities. With awareness raised by the recent frequency of on-the-job fatalities, the OSHA report served as a call for fundamental changes in how Yellowstone addresses safety and health in the workplace.

RECENT PROGRESS

A commitment to improve. Like visitor safety, park employee safety cannot be guaranteed, but Yellowstone has made a commitment to create a work environment in which employees can choose to behave in the safest possible manner. At Yellowstone, park managers are now expected to support and enforce a policy of "zero tolerance" for excuses, shortcuts, or cost-cutting measures that could threaten employee safety. They have been encouraged to adopt management processes that continuously trigger and reinforce safe job performance, and to tackle tough safety issues and remove barriers to safety improvements.

To become a model of safety excellence throughout the NPS has become a Yellowstone priority; it must also become each employee's responsibility. Evaluations of job performance at all levels will take risk management into consideration, and employees will be rewarded for taking an active role in efforts to improve their own and their coworkers' safety. In 1997, Yellowstone set a goal of reducing the number of on-the-job accidents by 10 percent each year for the next five years; $220,000 (about one percent of the park's annual budget) was allocated for this purpose in 1998 and another $100,00 in 1999.

Assistance from OSHA. After the release of their report, OSHA safety officers agreed to a partnership with Yellowstone to help park managers analyze high-risk activities and identify the appropriate safety equipment, training, and precautions needed to minimize accidents. With a commitment from OSHA to provide technical assistance, safety program development, and training resources, Yellowstone has promised to reduce all identified hazards and set up a park-wide internal safety audit and accountability system.

By October 1998, supervisors in all park divisions had attended new safety training, corrected as many of the noted deficiencies as possible, and outlined plans to address those that remained. The number of employees injured on the job had declined significantly from 1997, and employees sensed a attitudinal change in their peers and supervisors in emphasizing safety while accomplishing their assigned tasks.

Back to work. To minimize workers' compensation costs and encourage employee rehabilitation, Yellowstone initiated a back-to-work program in 1995 that enables employees who have had on-the-job accidents to work on alternate assignments during their recovery period. A new policy will also enable the park to bill employees for expenses that result from motor vehicle accidents in which the employee is found negligent. However, greater effort should be made to investigate accidents and take corrective action, including communication of the lesson learned to other employees.

Program Needs

Despite the special funds that were allocated to correct safety deficiencies following the OSHA inspections in 1997–98, a long list of unmet needs remains. Many problems result from the park's use of historic buildings and facilities that are not up to current codes and standards (see "Buildings and Grounds," page 7–22). Other steps that should be taken include:

- establishing safety accountability systems;
- aligning goals and objectives with the safety vision;
- aligning operational work to attain the safety mission;
- developing and implementing a behavioral management system;
- developing and implementing a reliable incident investigation and analysis system;
- fully implementing the Occupational Workers' Compensation Program case management system;
- fully complying with OSHA, NPS, and other standards;
- effectively training all employees in required safety and health elements;
- increasing involvement of all employees for improving safety;
- providing better safety and personal protective equipment;
- improving supervision for safety coaching, feedback, positive reinforcement, and rewards;
- increasing celebration and reward for safety achievement and continuous improvement; and
- continuing the budgetary commitment to the safety program.

SAFETY PROGRAM

STEWARDSHIP GOALS

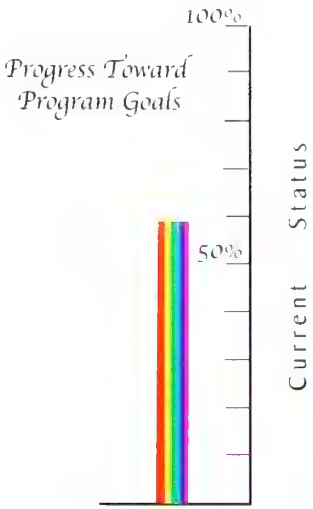
Park staff embrace safety as a personal and organizational value and integrate safety excellence into all park operations, minimizing accidents and OWCP claims.

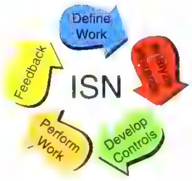
Park managers at all levels demonstrate safety leadership and support safe behavior. All OSHA and NPS requirements are met.

CURRENT STATE OF PROGRAM

Integrated safety management and continuous safety improvement are not yet part of workplace culture, but a new safety direction, an OSHA partnership, and high-level management commitment to safety excellence are in place.

Since 1997, managers have received additional training, direction, and funds to rectify identified deficiencies in training, equipment, and operational procedures. At-risk behavior is still overlooked and some supervisors do not reinforce safe work practices, but major improvements have been made in specific OSHA programs.





1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	$311,400
Staff	2.0 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan

The Operating Budget

Most of Yellowstone's funding comes from the annual appropriation of tax dollars that the U.S. Congress allocates to the National Park Service. Other funds that Yellowstone has at its disposal—such as the portion of entrance fees that the park is permitted to keep—are also important, but they are generally earmarked for specific projects and cannot be used for recurring expenses such as salaries and utility bills.

Yellowstone's base funding rose from $9,615,000 in 1980 to $23,041,000 in 1998. This may sound like substantial growth, but after adjusting for inflation as measured by the Consumer Price Index, the real increase was only $2.2 million (11 percent), which has been insufficient to cover the actual increases in the cost of running Yellowstone. As explained in this section, these are the financial realities at Yellowstone:

- The park's expenses have increased faster than inflation because of factors such as legislated personnel costs, higher visitation, and longer visitor seasons.
- With most of the park's funding needed to pay "fixed costs" such as salaries and benefits that are largely beyond their control, park managers must either make unpopular decisions (such as closing facilities) or reduce the amount available to spend on the highest priority needs (such as cyclic maintenance).
- Without adequate funding of critical maintenance programs, the park's infrastructure has deteriorated, creating an enormous backlog of projects that must be undertaken in order to protect the nation's investment in Yellowstone.

MANDATED COST INCREASES

Higher personnel costs. A large portion of the park's appropriated funds—about 68 percent in 1998—can be used to pay employee salaries and benefits. This expenditure has risen dramatically in the last 20 years because of changes in laws that govern federal employment. In 1980 Yellowstone was spending an average of $17,500 per employee for both salary and benefits—about $36,800 in 1998 dollars when adjusted for inflation. But in 1998, the actual amount Yellowstone was spending for salary and benefits had risen to an average of $41,000 per employee.

Of the several reasons for this per-employee cost increase, the most significant is the revamping of the federal retirement system that occurred in the mid-1980s. Under the prior Civil Service Retirement System (CSRS), the cost for all federal employees was paid out of a government-wide account; under the new Federal Employees retirement

System (FERS), each federal agency must pay for the participation of its own employees, which the NPS passes on to each park. While this change has improved accountability for federal expenditures, it has added to the personnel costs borne by all national parks. As Yellowstone employees still participating in CSRS leave and are replaced by new employees participating in FERS, the park picks up the cost of their retirement benefits which, including the 6.2 percent Social Security tax, is equal to over 20 percent of the employee's salary on average.

Other "under-funded" mandates that have resulted in higher park expenses include the cost-of-living adjustments set by Congress each year and union-negotiated increases for wage-grade employees. Even if Yellowstone's staffing requirements had remained the same since 1980, the total impact of these mandated cost increases ($4,200 per employee on average) would have cost the park an additional $1.7 million.

Equipment and training. Compliance with other new requirements has resulted in the need for additional technical equipment and specialists, and for additional training for existing employees assigned to new tasks. For example, the Occupational Safety and Health Administration (OSHA) now requires a minimum of three people to patch potholes, including two to flag traffic—and potholes are one item Yellowstone has no shortage of. At least two people are also required for any work that is done in confined spaces, such as the repair of underground utility lines and plumbing systems. Employees must be routinely trained in skills from defensive driving to basic snowmobile repairs in case of breakdowns, and some workers, such as emergency-response rangers and firefighters who perform arduous duty, must be regularly tested for fitness and health. While the need for such safety standards is apparent, they come with a steep price tag; Yellowstone has invested more than $1.5 million in initial costs and spends approximately $600,000 each year to comply with safety requirements set by federal law or NPS policy.

MEETING HEALTH, LIFE, AND SAFETY STANDARDS

NEW PROGRAM	ANNUAL COST
Confined space entry	$ 19,804
Blood-borne pathogens	26,854
Personal protective equipment	31,732
Hazardous materials	29,786
Hazard communication	19,829
Underground storage tanks	6,000
Asbestos abatement	1,850
Carbon monoxide monitoring	6,800
Drinking water (second operator)	91,885
Waste water treatment	93,607
Solid waste treatment	46,200
Respiratory protection	67,054
Hearing conservation	6,650
Lead paint removal	2,800
Radon abatement	2,000
UFAS (accessibility standards)	27,000
Hantavirus (education, compliance)	32,874
Commercial drivers' licenses	3,600
Structural fire protection systems	25,000
Defensive driver training	20,043
Employee physicals	11,600
Contaminated soil remediation	5,000
Monitoring wells/landfill closures	2,500
TOTAL	$ 580,468

OTHER COST INCREASES

Higher utility costs. The cost of basic utilities such as electricity and waste disposal has increased faster than the inflation rate (see Energy, Utility, and Waste Management Systems," page 7-30). In one extreme case, the "tipping fees" for dumping solid waste in Park County, Montana facilities rose by more than 663 percent since 1980—453 percent above the inflation rate—but less dramatic increases apply for almost all utilities that must be obtained from providers outside the park. Taken together, these cost increases have added about $0.5 million to the park's operating expenses. When combined with the $1.7 million increase to maintain 1980 staff levels, the $2.2 million in real growth in the base budget since 1980 has been used up.

New programs. Many park programs have been added or expanded since 1980, when a nationwide "State of the Parks Report" elicited concern that preservation of the national parks' natural and cultural resources was at risk. Yellowstone has introduced programs in wolf restoration and archeological protection and has taken on a larger role in bison management and in managing the increasing number of biotechnology companies that want to conduct research on specimens collected in the park.

Increased visitation. The annual park visitor count has grown by 50 percent since 1980, from about 2 million to about 3 million in recent years—without a comparable increase in the park's funding. In 1980, the park's base budget was equivalent to about $10 per visitor (when expressed in 1998 dollars, adjusted for inflation); the current base budget provides only about $7.50 per visitor. While some of the park's expenses are unrelated to visitation levels—it costs the same to monitor water quality regardless of the number of visitors who show up—the major expenses for personnel and infrastructure have been directly affected by both the larger number of visitors coming each year and the longer period during the year when visitors arrive.

A full-time park. For most of its long history, Yellowstone was largely shut down in late autumn; only minimal visitor services, resource protection efforts, facility maintenance, or road plowing was provided from November until May. Although the vast majority of visitors still appear during a few summer weeks, Yellowstone has seen a gradual shift toward year-round use. Since 1980, fall and winter visitation has more than doubled (see "Winter Use," page 6-38). One of the additional costs that has resulted from this shift is a larger portion of full-time rather than seasonal employees—from 22 percent of the payroll classified as "permanent full-time" in 1980, to 61 percent in 1998.

Full-time employees are more expensive than seasonals not only because they receive a salary for more weeks of the year, but because they are eligible for the total employee benefits package, which for an employee participating in FERS equals about 31 percent of salary on average. The NPS has also been under pressure to increase the portion of employees eligible for benefits in order to avoid the regrettable situation of seasonal employees who work year after year in national parks without ever receiving medical coverage or retirement benefits.

Additional staff. Although the National Park Service has streamlined its Washington and regional offices in recent years to reduce expenses, one result has been that many responsibilities previously handled at those levels have trickled downward to park employees whose plates were already full. When combined with the demands of new mandates, new programs, and increased visitation and a longer visitor season, the inevitable consequence has been a growth in Yellowstone's staff. The number of full-time equivalent positions or "FTEs" (with part-time jobs counted as fractional FTEs) rose from 410 in 1980 to 491 in 1998, increasing the park's expenses by $4.2 million during that period—more than 18 percent of the current base budget. These added personnel compete with more established programs for project dollars and equipment. Although park managers have tried to compensate by obtaining funds from new sources and making cuts to programs, each of these alternatives has had negative impacts.

As the Seasons Change

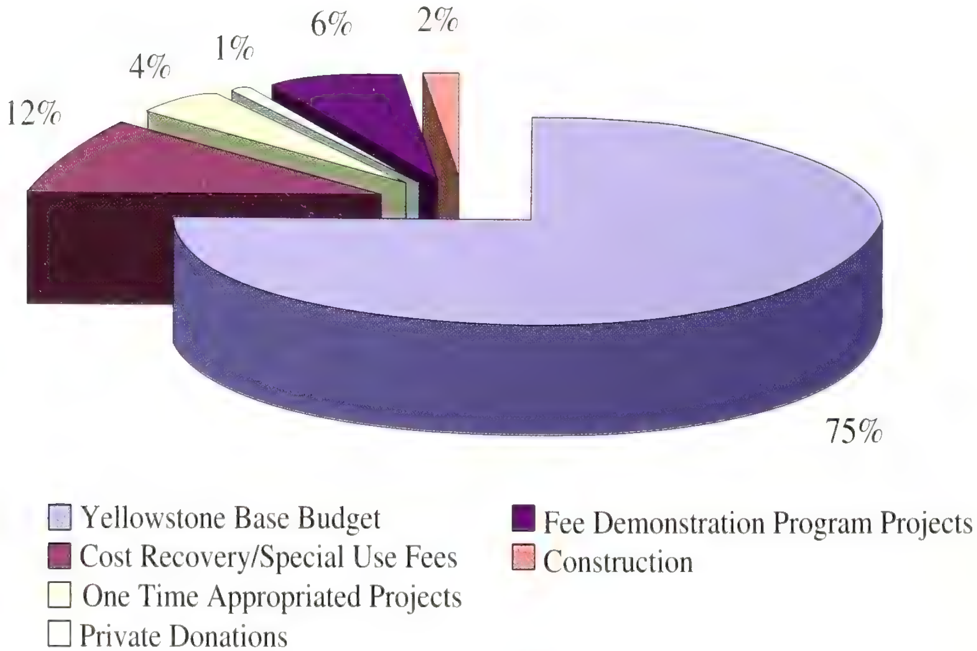
Like many other national parks, Yellowstone has traditionally operated on a seasonal basis, adapting its operations to respond to the variable climate and associated flux of visitors. In March and April, the park adds employees to help plow snow-covered roads and remove snow stakes from the shoulders. These work crews shovel roofs, unshutter windows, and dig out buildings that have been unused all winter. Heat is turned on and water lines are opened, flushed, and tested to ensure that they are safe and sanitary. Solid waste that has been stored in trash packers in the snowbound interior during the winter is hauled out of the park before hungry bears emerge from their dens. Newly arrived seasonal employees attend orientation sessions and receive on-the-job training as they take on their assigned duties. A winter's worth of fallen trees must be cut or dragged away from campsites and trails. Boardwalks and signs, damaged and discolored under the snow, are repaired and repainted. By June, roads and facilities are open for business and the park bustles with activity.

In October and November, the pattern is reversed, as offices and quarters are closed up, pipes are drained, and fuel storage tanks are topped off for the last time that year. Workers replace the snow stakes to mark road berms, plumbing valves, heating meters for the plow drivers and, as the visitors slowly become scarcer, "seasonals" return to home or school, travel to distant lands, or migrate to jobs at other parks in warmer climates where the season is just beginning.

THE COLORS OF PARK MONEY

Like those of a business or family, Yellowstone's financial obligations include both recurring and non-recurring expenses. The park has recurring expenses for ongoing operational requirements such as employee salaries and benefits, supplies and equipment, utilities, and routine maintenance of roads, buildings, and other assets. The park's non-recurring expenses include capital investments (new construction and rehabilitation of existing facilities) and one-time projects such as an inventory of rare plants that may take from several weeks to several years.

Sources of Funding for Yellowstone FY-98 Operations



Yellowstone's funding sources can also be classified as recurring (primarily its base funding) and non-recurring, such as special allocations from the NPS or another federal agency to pay for a particular project. As shown above, in 1998 the park's base funding accounted for about 75 percent of the money spent to protect the park's resources and serve visitors, not including expenditures for capital improvements or made by the park's concessioners. However, because the base funding has not been sufficient to cover all of the park's recurring expenses, Yellowstone has had to use non-recurring funding sources to help pay for operational expenses, including some salaries.

Yellowstone base funding. This money comes from the annual appropriation that the U.S. Congress makes for the Operation of the National Park Service (ONPS) and is allocated by the NPS to each park. In recent decades Yellowstone's base funding has increased every year, although not at the same rate as the park's expenses.

Cost recovery/special use fees. In addition to the entrance fee, the NPS is authorized to charge fees for specific park activities or services and to use the resulting revenues to help pay for related expenses incurred by the park. In 1998, these revenues included $620,000 from the sale of fishing permits, $66,000 in boating permits, $70,000 in commercial filming permits, $49,000 from educational programs for school groups taught in the park, $28,000 in advanced backcountry reservation fees, $1.5 million from entrance fees that is used to cover the cost of collecting those fees, $1,245,000 from rents paid by tenants of park housing, and $1.4 million reimbursement for utilities expenses incurred by concessioners and others using park facilities.

One-time projects. The NPS's annual Congressional appropriation includes some funding that is used as grants to target specific issues. Parks compete for money from these "special emphasis programs" by submitting requests to the NPS; only those proposals deemed the most deserving can be funded each year. In 1998, examples of projects for which Yellowstone received one-time funding included the printing of a trail guide, removal of nine underground storage tanks, preservation of historic photographs, and health inspections of concessions operations.

Private donations. National parks are authorized to use corporate and individual donations to cover their expenses. Some of the donations Yellowstone receives can be used for any purpose, while other donors specify a project on which the money is to be spent. This category of funding ($330,000 in 1998) does not include most of the hundreds of thousands of dollars that are raised each year by the Yellowstone Association and the Yellowstone Foundation and spent directly by those organizations on Yellowstone's behalf for specific projects. (See pages 8-3 and 8-5).

Fee Demonstration Program. Starting in 1997, Congress authorized designated units of the NPS (along with the U.S. Forest Service, U.S. Fish & Wildlife Service, and Bureau of Land Management) to keep 80 percent of the entrance and campground fees they collect, with the remaining 20 percent set aside for use as determined by the federal agency. Yellowstone National Park was one of 100 NPS units that was initially included in the program. NPS policy permits these revenues to be used to reduce the backlog of projects needed to address critical resource issues and maintain infrastructure. Although the program is now providing a significant source of funding each year, it is considered "non-recurring" because it has only been authorized until 2001.

1998 Funding Sources	1998 Use of Funds		
	Operations and Maintenance	Investments	Total
Recurring			
Yellowstone Base Budget	$ 23,041,000		$ 23,041,000
Cost Recovery/Special Use Fees	3,561,300		3,561,300
Subtotal	$ 26,602,300		$ 26,602,300
Non-Recurring			
One-Time Appropriated Projects	1,294,900	$ 1,983,500	3,278,400
Private Donations	330,000		330,000
Fee Demonstration Program	1,852,000	808,000	2,660,000
Capital Improvements			
NPS Construction Projects	516,000	2,511,000	3,027,000
Federal Highways Program		9,000,000	9,000,000
Subtotal	3,992,900	14,302,500	18,295,400
TOTAL	$ 30,595,000	$ 14,302,500	$ 44,897,700

This table compiles the "Current Funding" summaries shown throughout this report and separates "One-Time Projects" into those funded through Congressional ONPS appropriations and those paid for by private donations. The private donations amount shown here does not include non-monetary contributions or most of the donations made to the Yellowstone Association or the Yellowstone Foundation. "Capital Improvements" is divided into projects funded through the Congressional appropriation for NPS construction and those paid for by the Federal Highways Program. This table does not include spending for Yellowstone-related work performed by other government agencies, nor does it include more than $9 million in funds that are generated by concessioners' franchise fees and used to pay for operations, maintenance, and capital improvements related to the park facilities they use (see page 6–20).

Construction appropriation. In addition to the annual appropriation that is used for base funding, Congress makes a separate appropriation for NPS construction projects. Each construction project must be individually approved by Congress, so that Yellowstone must compete against other parks for the available money. Yellowstone has obtained this funding to pay for major capital projects, like replacing the trailers used for employee housing and the Canyon sewer system, and for some major equipment costs, such as vehicles, computers, and phone systems.

Federal Highways Program. Yellowstone's old roads are gradually being reconstructed through the Federal Lands Highways Program (FHLP), which is funded by the federal gas tax and administered by the U.S. Department of Transportation (see page

7–11). In 1998, the FHLP awarded a $9 million contract to reconstruct a section of the Grand Loop Road from Madison Junction to the Norris Geyser Basin. This funding was supplemented by nearly $1 million from the Department of Transportation to cover related costs for current and anticipated road work, such as traffic control; assessment and monitoring of impacts on vegetation, wildlife and archeological sites; revegetation and landscaping; and other planning, engineering, and compliance work.

THE PITFALLS OF PARK MONEY MANAGEMENT

While park managers understand the need to demonstrate creativity in using a variety of funding sources, the fact that 25 percent of the funds used to pay for operational expenses in 1998 came from a source other than the park's base appropriation has some disturbing implications.

- NEGLECTED PRIORITIES. The increasing reliance on other funding sources tends to turn park managers' attention to high-profile projects and highly publicized issues for which such funds are most readily available, rather than those which have the highest priority for Yellowstone's mission.

- OUTSIDER INFLUENCE. While corporate donations and other alternate funding are gratefully received, the pressure to compete for them carries the risk of encouraging management decisions that will please the funders even if they are not in Yellowstone's highest priorities.

- UNCERTAIN REVENUES. With the amount and sources of funding unreliable, park managers cannot make a commitment to either staff or long-term projects.

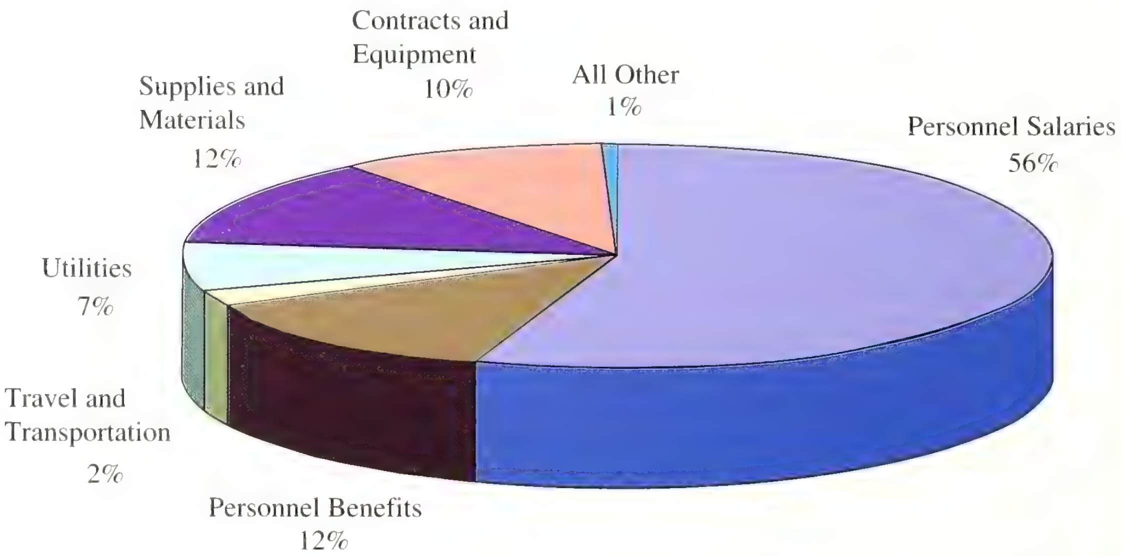
- UNKNOWN COSTS. When programs and salaries are paid from several sources that may change from year to year, the actual cost of running a particular program or a park division becomes obscured. Just because Yellowstone hires a wildlife biologist doesn't mean that his or her salary isn't being funded in part by the Federal Highways Program, which is providing the park with money to conduct an assessment of the potential impacts of road reconstruction on wildlife.

- UNWELCOME DISTRACTIONS. In addition to figuring out how to protect the park's resources and serve its visitors, park managers are spending an increasing amount of time writing project requests and overseeing compliance with specific program rules and reporting requirements.

WHERE THE MONEY GOES

Like any organization whose function is public service, Yellowstone spends most of its operational budget on its human resources—employee salaries and benefits. With almost 90 percent of the operations budget consumed by these and other "fixed" costs, the park has few alternatives in the search for ways to cut costs. For example, although a special effort has been made to control employees' travel and transportation expenses (reducing them by 20 percent and 51 percent, respectively, since 1992), they account for such a tiny fraction of the budget that the savings have little impact on the budget as a whole. And one of Yellowstone's traditional methods of budget balancing—reducing the number of seasonal employees hired to provide maintenance, interpretive, and visitor services—becomes less of an option as the park becomes more of an all-season destination with more year-round employees.

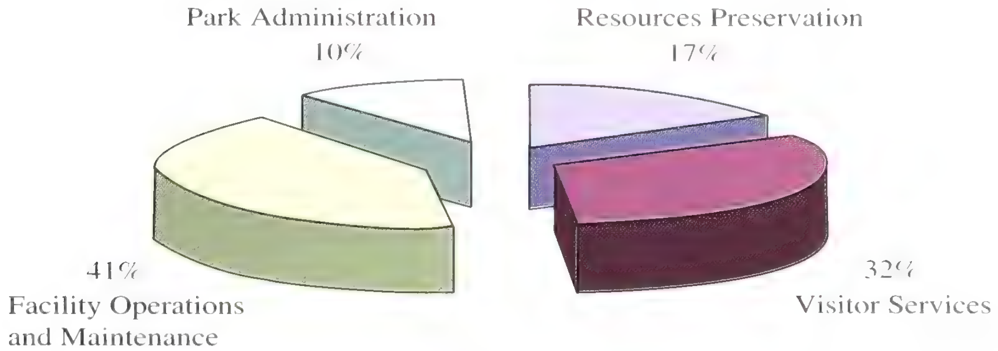
Yellowstone National Park FY-1998 ONPS Spending



Current staffing. Of the 446 permanent NPS positions that Yellowstone is authorized to fill, 71 (16 percent) remained empty in 1998 because of budget constraints. The 1998 staff included 375 employees assigned to "permanent" NPS positions (meaning their employment cannot be involuntarily terminated without cause), 24 employees on term assignments (working for one to four years with no guarantee of a permanent position), and 365 temporary or seasonal employees. To retain the dedicated employees who are working to fulfill Yellowstone's mission, they need to have access to specialized training and modern equipment, and, when appropriate, additional help to better serve the public and the park's irreplaceable resources.

As described in the chapters of this book and summarized in the chart below, the amount spent on each category of park operations is largely a reflection of the number of people assigned to work in that area.

1999 Allocation of Funds



Mortgaging the future. Cutting back on visitor services is so unpopular with both the public and Congressional representatives trying to reduce federal expenditures that Yellowstone has had to resort to other methods to live within its means. Programs for resource management, employee training and development, and infrastructure maintenance are reduced or postponed, with consequences that have been less immediately conspicuous than a closed campground, but often have more serious long-term repercussions.

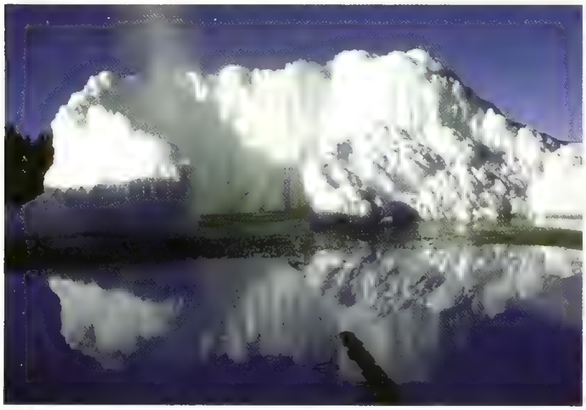
In the same way that changing the oil in your car helps ensure a long engine life, routine maintenance of park facilities and routine monitoring of the park's vegetation, wildlife, cultural resources, and thermal features ensures the long-term protection of these assets. Like car maintenance, if park maintenance is postponed too long, its assets deteriorate and become more expensive to repair, sometimes reaching the point where the problem can no longer be fixed at all. As a result of chronic delays in preventive maintenance and the lack of a capital budget dedicated to upkeep of buildings, vehicles, utilities, and equipment, much of Yellowstone's infrastructure is falling apart. Maintenance of these assets should be funded and managed separately from park operations.

Similarly, the NPS has historically been slow to initiate scientific monitoring of its cultural and natural resources, and despite some post-1980 initiatives to improve these programs, they are likely to be postponed in tight budgetary times. Unless resource loss or damage is blatant—extirpation of a rare species, vandalism of an archeological site, visible

TOUGH CHOICES

In 1996, short of funds and tired of trying to maintain all visitor services by reducing their quality, Yellowstone decided to help sustain the most essential and popular services by closing the museum, campground, and picnic area near the Norris Geyser Basin. This most volatile of the park's thermal basins, including Steamboat, the world's largest active geyser, could still be viewed from the area's trails. But closing the facilities saved utility and maintenance costs, and a total of $70,000 in operating funds. Although necessary to balance the budget, it was not a popular decision.

In 1997, revenues from the new Fee Demonstration Program freed up operating funds in other areas that could be used to reopen the facilities at Norris.



air pollution, or a toxic waste spill into a clean waterway—both the public and park managers are too easily lulled into thinking that resource management work can be deferred.

CLOSING THE GAPS

Recent progress. Yellowstone has not been alone among national parks in its budgetary straits, and widespread recognition of the problems created by deferred maintenance has led to Congressional authorization to augment NPS budgets through special fees, program funds, and outside revenues, provided that the parks demonstrate the proper fiscal management and accountability. For example, the Fee Demonstration Program, which has been renewed and extended until 2001, enables participating parks to keep most of the revenue collected from their entrance fees. However, instead of using this money to reduce some of the operating shortfalls, the parks have been directed to spend it on projects that will directly and visibly affect visitor services. Yellowstone expects the program will provide an additional $4 million annually to be allocated for infrastructure improvements and resource management, including these projects already completed or currently underway:

- rehabilitating park roads to make them minimally safe until they can be reconstructed using Federal Highways improvement funds;
- obtaining the equipment needed to conduct "industrial-strength" gillnetting of the nonnative lake trout that threaten the native cutthroat in Yellowstone Lake;

- reopening the popular Virginia Cascades Drive, a scenic "rustic road" that offered an alternate driving experience for park visitors until damage forced its closure in 1994;
- rehabilitating the Canyon Visitor Center and providing new exhibits on the park's unique geology;
- assessing and controlling acres of trees that threaten to fall on park facilities or in high visitor use areas;
- determining the effects of groomed winter roads on wildlife migrations;
- purchasing cleaner, biodegradable lubricating oil for the park's snowmobile fleet;
- upgrading the Madison Campground amphitheater and Mammoth Campground restrooms and improving their accessibility; and
- replacing outdated radio consoles in the park's 24-hour Communications Center.

A business plan. While the Fee Demonstration Program is enabling the park to make some progress in addressing the backlog of repairs and rehabilitation, it can only go so far. This "State of the Park" report, which summarizes Yellowstone's goals and assesses the park's progress toward achieving them, represents the first phase of developing a business plan for the park. Park staff are identifying the necessary tasks, personnel, and equipment associated with each park program and consulting with specialists in other government agencies as well as in private industry to determine what standards are most appropriate for Yellowstone and how much it will cost to adhere to them. Through this "benchmarking" process, park managers will ensure that their funding requests will prove reasonable under even the closest scrutiny.

Only after a consensus has been reached on the standards and resources that are needed to meet the stewardship goals outlined in this report, can we expect to close the gap between what the state of the park is and what it should be.

Staff and Budget

Stewardship Goals

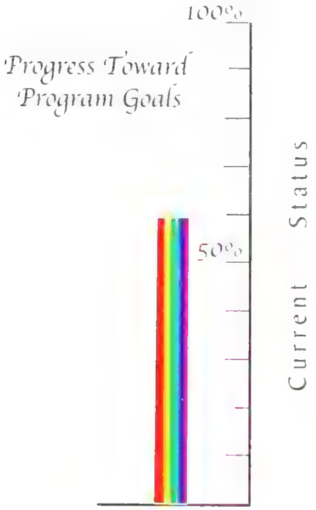
Park managers efficiently use financial and human resources to meet daily operational needs, conduct preventive maintenance, and carry out proactive, science-based programs to preserve cultural and natural resources.

Yellowstone has a sufficient capital and base operations budget to manage park assets and programs to meet industry standards for human health and safety, resource stewardship, and visitor service.

Current State of Program

An enormous backlog of resource management, interpretive, visitor service, and maintenance projects exists; park managers struggle to make limited dollars cover daily operations and address the most critical infrastructure failures.

Yellowstone's budget has failed to keep pace with inflation; employees become increasingly frustrated trying to do more work with fewer dollars and staff. Many performance standards fall well short of public expectations.



The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.

In Closing: A Wish for Yellowstone's Future

Like many Americans, Rosalynn and I have benefited greatly from our time in Yellowstone. It has been our great pleasure to visit the park several times with our family, where among other things we have enjoyed some wonderful fly fishing for the park's rainbows and native cutthroats.

But Yellowstone serves us on many levels beyond what it gives us during our all-too-brief visits there. Most of us, when we visit the park, think of our own immediate interests, whether as anglers, photographers, hikers, or any of the many other enthusiasts who find the park so fulfilling. But as this report has suggested, Yellowstone offers the world much more than the vacation of a lifetime. The park has become a great repository for biological rarities, including several endangered species and a host of micro-organisms that are changing our world.

More than that, the park is a repository of great ideas. For more than 125 years, Yellowstone has been the teacher and we have been the students. The park has helped us reconsider our relationship with nature, whether we were struggling to understand the complex interactions of predators and prey or the very fabric of life on this planet. As much as Yellowstone has done for our recreational needs, and for our scientific ambitions, it has done even more for our imaginations.

All Americans, whether they ever visit the park or not, share in the bounty of Yellowstone's gifts. I join with all of Yellowstone's other friends in celebrating this millennium, and in urging all who read this to ensure that Yellowstone continues to thrive, teach, and give, long into the future.

Jimmy Carter

The Honorable Jimmy Carter
Former President of the United States

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1999

YELLOWSTONE NATIONAL PARK

THE STATE Of THE PARK

YELLOWSTONE NATIONAL PARK 1999

EXECUTIVE SUMMARY

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Yellowstone Park Foundation

Executive Summary

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Introduction

The establishment of Yellowstone National Park in 1872 was only the beginning of a great quest to make the most of this extraordinary place. Since then, the prevailing views of how a national park should be managed have undergone many changes, reflecting both the ongoing public debate about the purpose of a national park and scientific advances in our understanding of how natural ecosystems function.

Our recognition that well-intentioned decisions made by past stewards have sometimes been a source of regret prompts some caution as we contemplate our own efforts to manage Yellowstone. We have learned from experience that we cannot improve on what nature provides; the best we can do is strengthen our protection of, and thereby allow, natural processes to ebb and flow largely unimpeded while making the park available for public enjoyment.

Like stewards of all national parks, Yellowstone's managers are struggling to do justice to their responsibility, which becomes more complex and paradoxical with each passing generation. The recognition of Yellowstone National Park as the core of a greater ecosystem is perhaps the most important shift in the public's perception since the first national parks were established for recreation and protection of wildlife and scenery in the late 1800s. The park cannot be insulated from the complicated political and environmental pressures that surround it as the twentieth century comes to a close. Every aspect of the park affects and is affected by what happens on the public and private land around it, in the region that has come to be known as greater Yellowstone. Just as park decisions about visitor access and resource management may influence the economic and physical well-being of the park's neighbors, so do their decisions support or jeopardize the park's future. Finding the right balance is not as simple as use versus preservation; it is a more philosophical question of providing use that is consistent with preserving natural values. One concern is not that the greater Yellowstone ecosystem may be on the verge of collapse, but that the cumulative effect of many affronts to its integrity over an extended period of time may progressively erode its richness until the damage is both irrefutable and irreparable.

We who are privileged to work at Yellowstone have developed this report on *The State of the Park* as a way to share our knowledge about its current status. The report is intended to be our candid appraisal of the state of Yellowstone's natural and cultural resources and the ability of the National Park Service to properly manage and protect them. We report on the park's progress toward the recovery of threatened and endangered species (grizzly bear, gray wolf, bald eagle, and peregrine falcon), and the continuing preservation of many other animals and their habitats. But we also point out some disturbing trends, such as the escalating encroachment of alien plants, animals and disease organisms, and concern about the future of the park's geothermal systems and bison and pronghorn populations. This report documents the paucity of staff and funding available to manage these complex and often controversial natural resource issues.

We also describe the cultural resources protected within Yellowstone, that range from outstanding archeological sites to nationally significant historic structures and the information, artifacts, and collections preserved in the park's library, museum, and archives. This report demonstrates that while we have made some progress in managing and preserving cultural resources, large elements of the program are still below Congressional and Department of Interior standards for adequate stewardship.

Providing for the enjoyment of the park by the public is one of our primary missions. Some important progress is noted, such as new informational exhibits, enhanced medical training for park personnel, expanded educational programs at the Yellowstone Institute, and major improvements in concession services, including new visitor accommodations at Canyon and Old Faithful. However, we remain concerned about the overall quality of visitors' experiences as reflected in their frustration with crowds, gridlock, and noise.

A review of infrastructure and management effectiveness shows that the needs of the park far outweigh the resources available despite some very important achievements such as reconstructed road segments, enhanced telecommunications, an aggressive program for alternative fuels, and improved employee housing. Millions of dollars are needed for road improvements, and other infrastructure-related deficiencies, in addition to the increased operating funds necessary to provide for the proper protection and management of the park.

Following a description of each of the park's major programs, this report summarizes the state of the program in relation to the park's stewardship goals, with data on each program's budget and staff in fiscal year 1998. Without using expensive research tools or analytical models, we have depicted our assessment of the park's progress toward meeting its many professional and legal obligations (e.g., the trend in the grizzly bear population, the condition of historic structures) using a graphic "barometer." From these individual program assessments, we have compiled an Executive Summary to give readers an overall sense of the state of the park as we enter the new millennium.

It is unfortunate that this report does not reflect better on our government's ability to protect Yellowstone. The problems it describes, many of which are the result of years of chronic underfunding, are not the fault of any one Congress, political party, or administration. We must all accept responsibility for allowing the nation's first national park to deteriorate. Rather than point fingers and determine responsibility, we must commit ourselves to correct the deficiencies and honor our obligation to future generations. A companion document, the park's *Business Plan for Yellowstone's Future*, to be released soon hereafter, will present specific benchmarks or standards for the park's major programs. It will also outline the human resources and financial support needed to achieve those standards for program success and the long-term protection and management of Yellowstone. If you have comments after reading this report, please let us know.

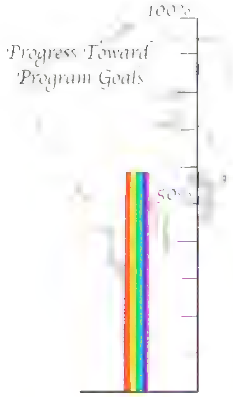
Is Yellowstone at risk? The answer is yes. Will it remain at risk? Only if the American public ceases to care, if budgetary needs are not met, or if the many county, state, and federal jurisdictions whose decisions affect Yellowstone do not recognize and act upon our collective interest in safeguarding essential resources beyond the park's boundary, resources without which the park itself will be tragically diminished.

For whatever debates we may have about how Yellowstone should be managed, few can question the merits of the enormous commitment that the world's first national park represents and the importance of continuing to support that investment. The gift this country gave itself and the world when the Yellowstone idea took hold has multiplied in value a hundredfold, and its assets will become more precious in the future, if we let them.

M.V. Finley

Michael V. Finley
Park Superintendent

The Yellowstone Landscape



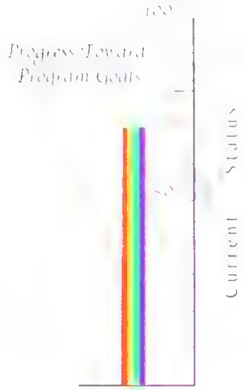
Yellowstone's waters, soils, and vegetation are interrelated in ways largely beyond our control. The park contains more than two-thirds of the world's geysers and 10,000 hot springs that are vulnerable to careless behavior by visitors as well as human activities that occur within the much larger ecosystem known as greater Yellowstone. Fires, floods, climate, and political and economic trends also ignore the park boundary, and both short-term and long-term changes in its landscape have been the inevitable result. Efforts to maintain Yellowstone in some "ideal" state would be neither realistic nor appropriate. The park's goal is to preserve the ecological processes that shape its plant and animal communities while minimizing the disruptions caused by both visitor and park management activities.

Tourism ranks as the second most important industry in Wyoming and Montana, with Yellowstone serving as a magnet for about 3 million visitors a year. The park's estimated impact on the regional economy is more than $500 million a year. The park has made considerable progress in working with its neighbors to balance sustainable tourism with conservation of the Yellowstone landscape, but more needs to be done to build lines of communication across geographic boundaries.

STEWARDSHIP GOALS	CURRENT STATE
AIR, SOILS AND GEOLOGY Air quality is maintained to national standards. The park's geology is completely inventoried, and the geysers, hotsprings, and other geothermal features are monitored to prevent damage to them or injury to park visitors.	The air is relatively clean, although snowmobile and car exhaust is a seasonal problem in some locations. Soils and landforms have been mapped, but less than half of the geothermal areas have been inventoried, monitoring is insufficient, and there is no long-term legislative protection against geothermal development outside the park.
LAKES, STREAMS, AND GROUNDWATER Lakes and streams are free-flowing; the quality of ground and surface water is pristine. Human uses have minimal impact on water quality and quantity.	The park's rivers are undammed and the water resources are generally free from upstream use; but outdated wastewater treatment systems threaten groundwater in some locations. The park staff is insufficient for adequate monitoring.
VEGETATION Native plant communities are inventoried and monitored; rare and sensitive plants are protected. Non-native species and other threats to native plants are addressed.	Maps of park wetlands and other vegetation types have been prepared, but limited research has been done on rare and riparian plants. Exotic species are spreading more quickly than we can limit their impacts on native plant and animal communities.
WILDLAND FIRE Naturally-caused fires play their ecological role in the landscape. When necessary to protect human life and property, fires are suppressed using the most safe, cost-effective and environmentally sensitive techniques.	Since fires swept nearly 36% of the park as part of an inevitable ecological process that was centuries in the making, the park's fire policies have been refined but proven to be fundamentally sound. Additional staff and equipment are needed to ensure adequate monitoring and control of fires.

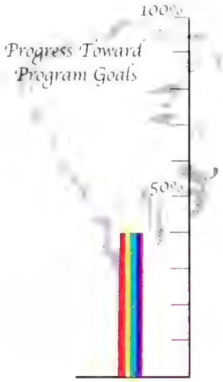
Wildlife

The park contains more than 2 million acres of largely undisturbed habitat that supports viable populations of most of the area's native animal species. Due to limited staff and funds, wildlife management programs have tended to focus on species of special concern and the goal of minimizing human impacts on the animals. However, a "hands-off" policy is not suitable in all situations, especially when human health or safety is at risk. Intervention is also considered appropriate in order to control the impact of non-native plants or animals, or to restore native species that have declined or disappeared because of human activities. But relatively little is known about the abundance and distribution of black bears, moose, small mammals, invertebrates, reptiles, and amphibians.



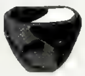
	STEWARDSHIP GOALS	CURRENT STATE
BIRDS	Yellowstone protects bird populations and their habitat, and works with other agencies as needed on behalf of endangered and migratory species.	Once-endangered peregrine falcons and bald eagles are recovering, but whooping cranes and trumpeter swans have declined in greater Yellowstone and migratory birds face many threats enroute to often imperiled tropical winter habitat.
BISON	The size and distribution of the bison population are determined by ecological processes insofar as possible. Cooperative arrangements with surrounding states manage the risk of disease transmission.	A growing herd of more than 2,000 bison, some of which leave the park in winter, conflicts with efforts to eradicate brucellosis from livestock. Park staff monitor bison movements and work with researchers in the search for better methods to control brucellosis.
ELK AND OTHER UNGULATES	Yellowstone supports herds of elk and other native ungulates that fluctuate in response to ecological processes and provide human enjoyment.	One of North America's largest elk herds and other ungulates are enjoyed by visitors, while controversy continues over their impact on the landscape, especially on the northern range. The viability of the pronghorn population is of special concern.
GRIZZLY AND BLACK BEARS	Working with neighboring communities and agencies, the park helps maintain viable populations of threatened grizzly bears and black bears while minimizing conflicts with human activities.	Although grizzly bears are increasing across the ecosystem, habitat loss is an ongoing concern outside the park. Less expensive and intrusive monitoring techniques are needed, but the incidence of bear-human conflicts in the park has declined greatly.
WOLVES	Park staff work with surrounding state and federal agencies to restore gray wolves to the ecosystem and provide assistance outside the park as needed.	More than 100 wolves live in greater Yellowstone surviving on elk and other native prey; park staff monitor their movements and help with control actions when necessary to address problems of livestock predation or other concerns.
FISH	Native fish are preserved and, where necessary, restored; recreational fishing is controlled to prevent negative impacts, and the effects of nonnative species are minimized.	The widespread acceptance of catch-and-release fishing maintain fish populations, but non-native lake trout loom as a threat to the Yellowstone cutthroat trout and the many animal species for which it is an important food source.

Cultural Resources

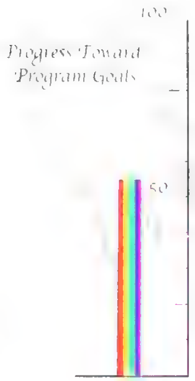


Yellowstone's cultural history extends back at least 11,000 years and continues today, as the world's first national park plays a prominent role in the land conservation movement. The legacy of how American Indians and generations of travelers, areas residents and park managers have used the natural and constructed landscape deserves preservation. The park contains nearly 1,000 historic structures, many of which are still used for visitor lodging, employee housing and work spaces, including five designated National Historic Landmarks. The library and archives preserve a 125-year accumulation of records about park resources and administration. The museum collection includes historic paintings, photographs, hotel furnishings, antique cars and stagecoaches, wildlife and herbarium specimens, fossils, and rocks.

However, because Yellowstone has been valued primarily as a "natural" park for so long, inventory and protection of significant structures, sites, and artifacts have only recently begun to receive needed attention. Damage to these resources, whether located in an inadequately monitored archeological site or crowded into a basement prone to flooding, will continue to occur unless the park's cultural resources program can be expanded.

	STEWARDSHIP GOALS	CURRENT STATE
ARCHEOLOGY	 Archeological sites are systematically surveyed, monitored, and protected, including the Obsidian Cliff National Historic Landmark.	About 1,000 American Indian and Euroamerican sites have been documented, but less than 1% of the park has been surveyed. Through natural erosion, land use, and vandalism, sites are being damaged before they can be recorded.
ETHNOGRAPHY	Ethnographic sites and resources are inventoried and protected. Affiliated American Indian groups are involved in protection and interpretation efforts through both informal and formal consultations.	21 American Indian groups are affiliated with the park and consulted regarding archeological sites of particular interest. However, little is known about Yellowstone's ethnography; a survey is underway to inventory and help develop ways to preserve these resources.
STRUCTURES AND LANDSCAPES	The most significant historic structures and cultural landscapes are evaluated and preserved according to standards for the National Register of Historic Places.	Lack of funds, harsh winters, and insufficient preventative maintenance have taken their toll on the park's buildings. Concession contracts are now providing significant funding, with major restorations completed at Old Faithful, Lake, and Roosevelt lodges.
LIBRARY, MUSEUM AND ARCHIVES	The park's storage facilities meet NPS and National Archives standards. Collections receive periodic equipment and technology upgrades and acquisitions of relevant material and are conveniently accessed by researchers.	Cramped facilities fail to meet safety and preservation standards. Little funding is available to add books, specimens and cultural artifacts to collections or adopt computerized technology. The proposed Yellowstone Heritage and Research Center will address this situation if funding can be found.

Science and Technology



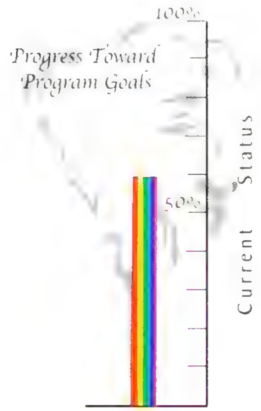
Although scientific advances and technological improvements are essential to fulfilling Yellowstone's resource protection needs and educational mission, the park must depend largely on research done by scientists from other government agencies and academic institutions. Their findings have been essential in addressing problems such as grizzly bear recovery and geothermal protection, but these independent researchers are under no obligation to focus on the issues that are most urgent for park management purposes, including bison brucellosis and the spread of exotic plants.

The commercial successes that have resulted from research on microorganisms that can survive in the park's hot springs have prompted Yellowstone to pursue the potential of "bioprospecting" agreements, under which companies wishing to conduct permitted specimen sampling would help fund conservation efforts at the park. But aside from the practical applications that can come from either non-profit or for-profit research, Yellowstone is important as a living laboratory in which we can learn how ecological processes have affected a broad landscape over centuries of time with little human interference.

Computer technology, including a geographic information system (GIS), helps support staff and outside researchers in analyzing the enormous quantities of data that have been compiled about the park and its resources, but funding and staff have not kept pace with the demand for high-tech products and services.

STEWARDSHIP GOALS	CURRENT STATE
RESEARCH	
A broad range of natural and cultural resource topics of concern to park management as well as of general scientific interest are studied by experts in their fields. Adequate logistical support is available for visiting researchers. Findings are communicated to a variety of audiences in and outside the park.	Partnerships with universities and nonprofit foundations have bolstered the potential for cooperative studies, but visiting researchers receive minimal support. Bioprospecting agreements with private companies may provide a source of funding for other research. Results and implications for park management are presented in *Yellowstone Science*, annual reports, and conferences.
TELECOMMUNICATIONS SYSTEMS	
Reliable, easy-to-use, radio, alarm, and telecommunication systems are maintained and upgraded as necessary to help ensure protection of park resources and the safety of visitors and employees. All park offices have computer access to the network.	Radio systems are being upgraded; cell phones provide access to remote ranger stations; alarm systems protect museums, fee collection stations, and utility systems with special safety requirements. Power poles and lines, communications satellites, and other equipment sometimes pose unsightly intrusions and safety risks.
DATA MANAGEMENT AND COMPUTER SUPPORT	
Park staff keep Yellowstone up to industry standards in the use of computers and information management systems. Public access to information about Yellowstone is available using the best of current technology.	Despite substantial recent investments, a backlog of equipment and wiring needs has prevented the park from providing adequate information storage and retrieval, database management, and Internet access. Public access to park information via computer technology is also very limited.

Managing Public Use and Services



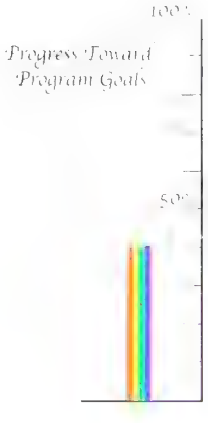
Like many national parks, Yellowstone must often struggle with how to accommodate public use and yet meet its conservation goals. When justified by concern for park resources or human safety, reasonable limits on visitor activities bring few serious objections from the public. However, the facilities and services available at the park have failed to keep up with increased visitor numbers and expectations. Interpretive facilities and programs need updating, and rangers are spread thinly across a vast landscape full of visitors and resources that need protection. Use continues to grow, especially in winter, creating new strains on staff and services–and possibly on the quality of each visitor's experience.

Stewardship Goals	Current State
Interpretation A broad range of high quality interpretive and educational programs are offered to enhance visitor experiences while addressing the park's mission of resource conservation.	Many facilities are inadequately staffed and equipped to provide the range of year-round programs needed for the public to more fully understand and enjoy Yellowstone. A multi-million dollar fund-raising campaign has begun to help construct a new visitor center at Old Faithful.
Visitor and Resource Protection Trained staff can address resource threats ranging from fire in a historic structure to poaching of wildlife, and assure rapid response to visitor needs.	Priority is given to responding to reports of missing or injured persons, crimes and other emergencies, resulting in few serious incidents for visitors, but staffing limitations mean inadequate protection of public safety and park resources.
Park Concessioners Commercial operations in the park are managed to benefit both the visiting public and the taxpayer; the activities offered and the use of park facilities are compatible with Yellowstone's mission.	The park's concessioners have made substantial improvements in facilities and equipment in recent years, and close monitoring ensures protection of park resources. But much remains to be done; renovations to campgrounds are needed along with more food service and budget lodgings.
Backcountry Management Regular backcountry patrols make visitor contacts, maintain trails, monitor resource impacts, and take corrective measures when necessary.	Abundant backcountry experiences are available, but staff are spread thinly across vast acreages, working to protect resources, keep trails clear, and provide information and assistance to visitors.
Winter Use Appropriate levels and types of activity can be enjoyed by a variety of winter users in an adequately staffed and equipped park without negative consequences for wildlife, quiet landscapes, or other park resources.	Winter use has grown more quickly than the capacity of park staff and facilities to accommodate it while protecting park resources. A new winter lodge has opened at Old Faithful, but warming huts, food services, and medical facilities remain inadequate.

Park Infrastructure

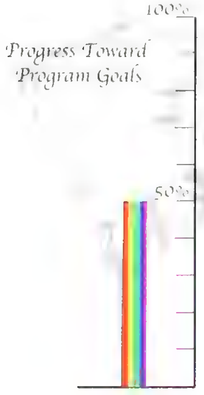
The park functions like a county, bearing the responsibility for infrastructure and services that are provided in most areas through local taxes or private contractors. But its long history has left Yellowstone with an assortment of buildings, utility systems, trails, and roads that is in many ways ill-suited to meet current needs and standards for public health and resource protection. Growing visitor numbers and more stringent regulations for safety and accessibility have helped create a large backlog of unfunded obligations. More than half of the park's 773 vehicles are more than 10 years old, and many employees must live and/or work in quarters that are cramped or not designed for year-round use.

Initiatives have been undertaken to reduce energy consumption and increase recycling and the use of "green" technologies, but Yellowstone has a long way to go to ensure the sustainable use and long-term preservation of its facilities.



STEWARDSHIP GOALS	CURRENT STATE
ROADS Visitors enjoy safe travel on well-constructed and maintained roads that provide scenic vistas and are in keeping with preservation of the park's natural and cultural resources.	Despite major efforts since 1986 using funds from federal gas taxes, only a quarter of the park's roads have been rebuilt, and construction-caused delays frustrate visitors. New construction funds have been promised to address this problem.
TRAILS AND BOARDWALKS All trails are constructed and maintained to the highest standard appropriate to the setting, encouraging universal access where feasible while minimizing adverse impact to resources.	Trails are cleared and maintained as staff time allows, with priority given to the most heavily used trails; neglect results in safety hazards, damage from erosion, and the creation of alternate routes. The park lacks a systematic program for cyclic maintenance or improving accessibility.
BUILDINGS AND GROUNDS Park buildings and grounds are maintained in good condition, serving a wide variety of visitor and employee needs.	Many buildings have inadequate insulation, wiring, plumbing, or other safety hazards that are addressed only when a crisis occurs.Limited housing options make it difficult to attract qualified employees.
UTILITY SYSTEMS The safest and most cost-effective and environmentally appropriate technology is used in the design, construction, maintenance, and operation of park buildings and utility systems.	Aging utility systems are generally failing to keep up with capacity requirements and environmental regulations. Some buildings have been retrofitted for energy efficiency, but hundreds more need similar work. Four sewage treatment plants at heavily used areas must be replaced.
TRANSIT SYSTEMS Safe, convenient, and environmentally sensitive transit systems provide visitors and staff with alternatives to private vehicles in the park.	Feasibility studies for alternative means of transportation have not yet resulted in practical solutions for reducing congestion in popular areas.

Park Staff and Funding



PARK SERVICE EMPLOYEES

Visitors generally regard all employees in the gray and green uniforms as "park rangers," and assume they will be a friendly source of information and help with everything from minor car trouble to major accidents and lost children. But NPS employees are not immune to stress stemming from concerns about the park's financial situation or their own salaries, benefits, and living and working conditions. For the park, the challenge is to attract and keep those employees who are best qualified and prepared to carry on the tradition of service that the public has come to associate with the NPS while improving employee safety and making the workforce more representative of the broad spectrum of racial and cultural origins of the public they serve.

HELPING HANDS

The business of taking care of park resources and visitors is shared with concession companies, volunteer and service organizations, and long-established cooperators who provide funds, workers, and equipment for park programs. The Yellowstone Association has contributed more than $6 million since 1933, through project funding and staff who help operate visitor centers. Individual and corporate donors have provided money, technical expertise, supplies, and products from software to films. The Yellowstone Park Foundation, created in 1996, is also helping generate private support for historical and cultural interpretation, wildlife management, habitat restoration, and research. Mutual aid agreements with local communities facilitate response to fires, law enforcement situations, and medical emergencies in and outside the park.

BUDGET CONSTRAINTS

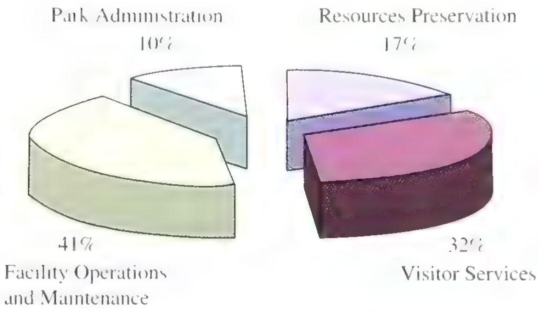
Most of Yellowstone's funding comes from the annual appropriation of tax dollars that the U.S. Congress allocates to the National Park Service: $22.4 million for 1998. Other sources—such as the portion of entrance fees that the park is permitted to keep—are also important, but they are generally earmarked for specific projects and cannot be used for recurring expenses such as salaries and utility bills. Even with recent funding improvements for the National Park Service and reconstruction of the park's old roads, and substantial donations to address problems like the threat of non-native lake trout in Yellowstone Lake, the park's expenses have been rising more quickly than its financial resources.

During the last two decades in particular, Yellowstone has had to meet the demands of increased visitation and longer visitor seasons. At the end of 1998, 15 percent of the park's permanent positions were vacant because of funding limitations. Legal and regulatory changes have resulted in higher personnel costs, as well as increased requirements for training and equipment to meet national safety or certification standards. NPS grants, user

1998 FUNDING SOURCES*

RECURRING	
Yellowstone Base Budget	$23,041,000
Cost Recovery/Special Use Fees	3,561,300
NON-RECURRING	
One-Time ONPS Projects	3,278,400
Private Donations	330,000
Fee Demonstration Program	2,660,000
NPS Construction Projects	3,027,000
Federal Highways Program	9,000,000
TOTAL	$44,897,700

1998 ALLOCATION OF FUNDS



fees, and donations have helped, but with almost 90% of the budget consumed by "fixed" costs such as the salaries of permanent employees and the electric bills for permanent facilities, there is little room to maneuver when unexpected contingencies arise.

FUNDING AND STAFF IN 1998

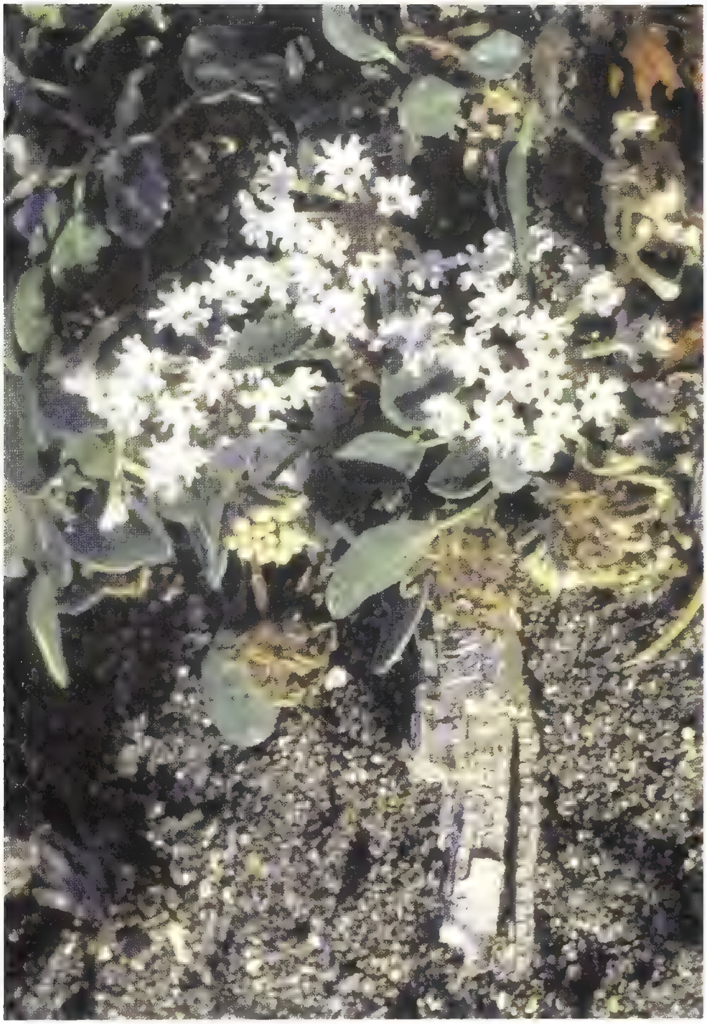
The table on page 9 lists the major program areas and the staff and funding allocated to each in 1998.

- **Staff.** The Park Service staff is counted as "full-time equivalents" (FTEs), adding in seasonal and part-time employees based on the fractional portion of the year worked.
- **Recurring Funds.** As shown in the "1998 Funding Sources" table above, "recurring" sources are the park's annual Congressional appropriation and payments the park receives from "cost/recovery/special use fees," which include reimbursement for utility expenses incurred by concessioners and others using park facilities, and visitor activities fees such as fishing and boating permits.
- **Non-Recurring Funds.** Included as non-recurring: funding provided by the Congress for the Fee Demonstration Program for construction and other one-time projects; Federal Highways Program funds which are being used to reconstruct park roads and pay related costs such as monitoring of construction impacts on natural and cultural resources; and private donations made directly to the park. Non-recurring sources as shown in this table and in the "1998 Funding Sources" table do not include most of the donations made to the Yellowstone Association or the Yellowstone Foundation which are spent on the park's behalf, nor more than $9 million in funds that are generated by concessioner fees and allocated for the operation, maintenance, and capital improvements related to the park facilities they use.

*Note that this document describes only the major Yellowstone programs and thus does not completely account for the total funds shown in the "1998 Funding Sources" table above. Funds spent on programs not specifically identified in later sections are grouped in the last line on page 10, "Management and Administration Programs." Examples of expenditures included in this line include $145,000 the park spent on entrance station staff and other costs for the fee collection operation, and about $3.9 million spent on the management and administration of the park.

1998 YELLOWSTONE STAFF AND FUNDING

PROGRAM	STAFF	RECURRING FUNDS $	NON-RECURRING FUNDS $
Landscape			
Air, Soils, & Geology	0.7	200,165	36,500
Lake, Streams, & Groundwater	0.4	14,500	7,600
Vegetation	3.4	76,500	76,550
Wildland Fire	15.5	620,000	—
Wildlife			
Bear Management	2.5	115,300	25,300
Birds	0.8	57,500	13,800
Bison	3.3	130,000	206,700
Elk /Ungulates	0.5	38,000	—
Aquatic Resources/Fisheries	5.7	460,800	20,500
Wolf Restoration	2.4	221,000	37,700
Other Wildlife Programs	0.8	43,000	11,200
Cultural Resources			
Archeology	0.6	7,300	252,600
Cultural Landscapes	1.1	52,400	—
Ethnographic Resources	0.5	25,200	—
Historic Structures	0.8	38,800	22,900
Library, Museum, & Archives	6.0	94,500	173,600
Science and Technology			
Research Support	4.5	242,200	—
Geographic Information Systems	2.9	121,000	33,200
Telecommunication Systems	9.0	812,100	96,500
Information Management/Computers	5.0	283,400	54,600
Sustainable Use Initiatives	0.5	3,200	30,000
Public Use and Services			
Interpretive Program	37.4	1,431,700	134,600
Public Affairs Office	4.0	248,600	—
Concessions Management	9.0	461,190	27,500
Backcountry Management	16.2	1,026,450	—
Winter Use	—	60,000	143,999
Visitor Protection	72.0	3,753,790	17,000
Structural Fire	2.0	226,000	—
Resource Protection Operations	15.6	530,536	107,300
Infrastructure			
Park Planning	5.0	213,000	65,000
Trails & Boardwalks	13.2	221,500	431,000
Roads	52.6	2,298,000	10,326,200
Transportation Systems	17.2	1,944,900	489,000
Buildings & Grounds	70.5	4,436,475	3,685,700
Utility Systems	38.3	1,883,100	232,000
Administration			
Staff Development	1.5	10,000	11,000
Safety Program	2.0	311,400	—
Mgmt. & Admin., Other Programs	86.6	3,888,795	1,525,851
TOTALS	510.0	26,602,300	18,295,400



1999

YELLOWSTONE NATIONAL PARK

EXECUTIVE SUMMARY

Superintendent's Annual Performance Report

FY2000

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Yellowstone National Park
Superintendent's Annual Performance Report
For
FY2000

Mission Statement

Preserved within Yellowstone National Park are Old Faithful and the majority of the world's geysers and hot springs. An outstanding mountain wildland with clean water and air, Yellowstone is the home of the grizzly bear and wolf and free ranging herds of bison and elk. Centuries-old sites and historic buildings that reflect the unique heritage of America's first national park are also protected. Yellowstone National Park serves as a model and inspiration for national parks throughout the world. The National Park Service preserves, unimpaired, these and other natural and cultural resources and values for the enjoyment, education, and inspiration of this and future generations.

Approved: M.V. Finley *Date:* 2/12/2001
Superintendent

INTRODUCTION

GOVERNMENT PERFORMANCE AND RESULTS ACT OF 1993 (GPRA)

This Annual Performance Report was written, in part, to fulfill the requirements of the Government Performance and Results Act (GPRA). Congress enacted this law in 1993 to bring the federal government into the "performance management revolution." Performance management is a goal-driven management concept and practice already widely adopted by the private sector, state and local governments, and many others. GPRA requires federal agencies to develop 1) a **Strategic Plan,** 2) **Annual Performance Plans,** and 3) **Annual Performance Reports** in order to more effectively and efficiently manage their activities to achieve their missions and to more effectively communicate with the Congress and the American people. Please see the park's Strategic Plan for more information about GPRA and performance management. Copies of this Strategic Plan are available from the Superintendent's Office, Yellowstone National Park.

It should be noted, however, that the following Annual Performance Report is much more than just a response to legislative mandate. The law was a catalyst for park staff to reexamine their daily activities and routine products and services as well as the funding and staffing expended to accomplish their tasks. It motivated and energized us to make sure these things were well aligned with the missions of the National Park Service (NPS) and Yellowstone and the long-term goals established to achieve those missions. The results, we believe, will be better planning, better management, and better communication with all of our constituencies and stakeholders, as well as among ourselves about where we are, where we need to be, and how we are going to get there in the most effective and efficient ways.

ABOUT THIS REPORT

An Annual Performance Plan is written each fiscal year as a one-year increment of the Yellowstone National Park Strategic Plan.

The five-year Strategic Plan was first submitted on September 30, 1997, for fiscal years 1998-2002. It complements and dovetails with the National Park Service Strategic Plan and displays how Yellowstone addresses Servicewide mission and goals as well as the specific mission and long-term goals of this park. The Strategic Plan contains a mission statement, mission goals, and long-term goals as well as information on how the long-term goals will be accomplished. GPRA requires that all agencies' Strategic Plans be reviewed and revised every three years, so this Strategic Plan was revised for fiscal years 2001-2005.

The Annual Performance Plan then lays out -- as annual goals -- this year's increments toward achieving the long-term goals of the Strategic Plan and, thus, the mission goals and mission of the park and the NPS. Each goal is listed in the context of its parent mission and long-term goal. Like the parent goals, each annual goal is results- or outcome-oriented. Each is objective, quantified, and measurable, with performance measures built into each goal statement itself where possible. The annual goals in Goal Category IV, Ensure Organizational Effectiveness, are output goals. Each goal contains a brief narrative to give background explanation, an overview of how the goal will be accomplished, and an indication of how accomplishments will be measured. The Annual Performance Report is the third element in the family of performance management documents.

This Annual Performance Report addresses the progress made toward meeting the park's annual goals for fiscal year 2000, and provides an analysis and identification of continuing goals for fiscal year 2001. In the report the Superintendent highlights significant concerns, problems, events, trends, and decisions affecting park management during the fiscal year. We expect this report will provide useful and useable information that allows the National Park Service, Congress, taxpayers, and friends' groups to know how well the annual goals were met. Knowing and understanding why (or why not) goals were achieved is essential for good management.

From a servicewide perspective, the evaluation of results from each park, program, and central office at the annual goal level are reported with clear linkages to the servicewide long-term goals and mission goals. To facilitate roll-up reporting, a performance management data system has been developed and is universally used. The input screens have projected performance targets and actual performance targets along with funding sources and amounts. The "actual" becomes the basis for the servicewide annual performance report each year. The performance management data system assures that the annual performance plans throughout the Service, as well as the servicewide annual performance plan, can be reconciled against budget justifications and annual performance plans for upcoming fiscal years.

SUPERINTENDENT'S HIGHLIGHTS

STATE OF THE PARK

Yellowstone National Park officials released *The State of the Park* report, developed in response to concerns expressed by Congress. For many years, Congress has been asking the National Park Service for a comprehensive accounting of exactly what is done with the money appropriated to the parks.

The State of the Park report is intended to be a candid appraisal of the state of Yellowstone's natural and cultural resources and the ability of the National Park Service to properly manage and protect them. The park's progress toward the recovery of threatened and endangered species and the continuing preservation of many other animals and their habitats are assessed. While there have been positive achievements, some disturbing trends are also pointed out, such as the escalating encroachment of alien plants, animals, and disease organisms. There is also concern about the future of the park's geothermal systems and bison and pronghorn populations. This report documents shortages of staff and funding needed to manage these complex and often controversial natural resources.

The report describes the cultural resources protected by Yellowstone, which range from outstanding archeological sites to nationally significant historic structures and the information, artifacts, and collections preserved in the park's library, museum, and archives. While some progress has been made in managing and preserving cultural resources, large elements of the program are still below Congressional and Department of Interior standards for adequate stewardship.

Providing for the enjoyment of the park by the public is one of the park's primary missions. Some important progress is noted, such as new informational exhibits, enhanced medical training for park personnel, expanded educational programs, and major improvements in concession services, including new visitor accommodations at Canyon and Old Faithful. However, there is concern about the overall quality of visitors' experiences as reflected in their frustration with crowds, gridlock, and noise.

A review of infrastructure and management effectiveness shows that the needs of the park far outweigh the support available despite some very important achievements such as reconstructed road segments, enhanced telecommunications, an aggressive program for alternative fuels, and improved employee housing. Millions of dollars are needed for road improvements and other infrastructure-related deficiencies, in addition to the increased operating funds necessary to provide for the proper protection and management of the park.

A companion document, the park's *Business Plan for Yellowstone's Future*, is currently being prepared and will present standards for the park's major programs. It will also outline the specific human resources and financial support needed to achieve those standards for program success and the long-term protection and management of Yellowstone.

PARTNERSHIPS

The flourishing relationship with the Yellowstone Foundation continued in FY2000. Total expenditures to the park totaled $624,383. Major projects funded by the foundation included, Youth Conservation Corps, General Wolf Recovery, Westslope Cutthroat, Bison Fence Project, Northern Range Kiosk, Pelican Valley Trail, Wolf Interpretation, Mt. Washburn Exhibits and Library Automation. The Yellowstone Foundation is a non-profit organization dedicated exclusively to raising money for projects and programs that protect, preserve, and enhance Yellowstone National Park. Their goal is to alleviate the environmental and financial pressures that Yellowstone faces by raising money for projects that are beyond the financial capacity of the National Park Service.

The Yellowstone Association (YA) remains a vital partner in interpretation and education programs, products and services in Yellowstone National Park. During 1999, YA provided $125,000 to launch the development of a new film on Yellowstone's geysers to replace the existing 30-year-old production. Other YA-funded projects nearing completion include trailside exhibits for the Upper Geyser Basin trail system, new orientation exhibits for trailheads at West Thumb Geyser Basin, Mud Volcano, Fountain Paint Pot, Midway, and Black Sand Geyser Basins, and exhibits for overlooks along the rims of the Grand Canyon of the Yellowstone (combined total of approximately $100,000). A $50,000 donation received by YA from the Afognak Foundation provided funding for redesigning our outdated self-guiding trail leaflets; a prototype booklet was developed for Old Faithful and the Upper Geyser Basin, with the other six leaflets to follow in 2000.

The park expanded its relationship with the Department of Energy at the Idaho National Engineering and Environmental Laboratory (INEEL) to include training/evaluation of "Systems Engineering," bioprospecting, and safety consultation. Yellowstone and the Environmental Protection Agency continued efforts in the fields of recycling, sustainable energy, less hazardous cleaning materials, and other greening technologies. Relationships with the Department of Interior and the U.S. Geologic Survey broadened to develop a greater Yellowstone science initiative to address landscape scale natural resource issues.

The Greater Yellowstone-Teton Clean Cities Initiative continued strongly throughout the year. This partnership of Federal, State, and Local Agencies and businesses and non-governmental organizations are working to bring alternative fuels for transportation and buildings to the Yellowstone Area. The Clean Cities plan was nearing approval at year's end, and a number of grant applications had been submitted. Some of those that were already bearing fruit would allow a Compressed Natural Gas refueling facilities to be put into Idaho Falls and Jackson.

The Beartooth Highway partnership continued through the year, with the National Park Service participating with the U.S. Forest Service, the Federal Highway Administration, and State highway Departments to address improvements to this road leading to the park's Northeast Entrance.

The park increased its partnership with the Western Transportation Institute. This group of federal and state agencies and universities have partnered to promote safety and more efficient transportation. Yellowstone Park has received funding to install an automated vehicle identification system that will allow entrance to the park without waiting in line, thereby reducing fuel and air quality concerns. These new gates will be installed at the north and northeast entrances. The park also received separate commitment of funding in 2003 from the State of Montana Department of Transportation to install AVI equipment at the West Entrance in conjunction with a new entrance station.

The park expanded its relationship with the Department of Energy at the Idaho National Engineering and Environmental Laboratory (INEEL) to include training/evaluation of "Systems Engineering," bioprospecting, and safety consultation. Yellowstone and the Environmental Protection Agency continued efforts in the fields of recycling, sustainable energy, less hazardous cleaning materials, and other greening technologies. A member of the Denver, Colorado EPA staff was detailed to Yellowstone to facilitate this relationship. Relationships with the Department of Interior and the U.S. Geologic Survey broadened to develop a greater Yellowstone science initiative to address landscape scale natural resource issues.

The Superintendent plays an active role in the GYCC, which consists of the Forest Supervisors from the six adjacent national forests, Superintendents of Yellowstone and Grand Teton National Parks, and the Manager of the National Elk Refuge. Because Yellowstone is the core of the ecosystem, it is imperative that he be actively involved in all manner of decisions and activities occurring in the area.

Park County, Montana, and Yellowstone Park completed a redesign of an area adjacent to the North Entrance of the park. This joint effort has resulted in the building of a public picnic area with a shelter, interpretive, and restroom facilities on county land adjacent to the park. The new Arch Park is being enjoyed by both the community and the public.

BISON

Management of bison continues to be a critical protection issue at Yellowstone. In 1990, the state of Montana, the U.S. Forest Service (USFS), and the NPS entered into an agreement to develop a long-term management plan and Environmental Impact Statement (EIS) for managing bison migrating from the park into Montana. Interim plans and accompanying Environmental Assessments were developed and implemented through the years, but a final EIS was never completed. In 1995, the state of Montana sued the NPS and the U.S. Animal and Plant Health Inspection Service (APHIS) regarding bison management and threats to Montana's brucellosis class-free status. A settlement agreement to the lawsuit resulted in an interim bison management plan that called for construction of capture facilities inside and outside the park, capture and shipment to slaughter of all bison exiting the park boundary at Reese Creek, and capture and serological testing of all bison exiting the west boundary. Bison from the west boundary testing positive, as well as all pregnant females, were to be shipped to slaughter. Negative testing, non-pregnant bison were to be allowed to roam freely on designated public lands in the west boundary area. During the severe winter of 1996-97, the interim plan resulted in approximately 1,100 bison being killed and reduced the largest wild, free-ranging bison population by over 30 percent to about 2,000 animals.

Although progress has been made in developing an acceptable bison management plan, it is not complete, and there are components of the plan whose success will not be known for decades. A draft bison management plan/EIS was prepared by the NPS, state of Montana, and USFS, with input and involvement from APHIS. The draft plan/EIS was released for public review and comment in June 1998. By the end of the public comment period in November 1998, over 67,000 comments were received from across the United States and 60 countries around the world. The draft plan, though far from ideal, reflected alternatives that were the best the NPS, APHIS, the USFS, and the state of Montana could negotiate at that time given the significant differences in agency mandates and interests of Montana. The draft plan contained nine significant objectives, with particular emphasis on maintaining Yellowstone's wild and free-ranging bison herd and Montana's brucellosis class-free status. To achieve these objectives, the draft plan/EIS contained seven alternatives with the preferred alternative establishing a population range, specific boundaries (outside current park boundaries) beyond which bison will not be tolerated, a vaccination program toward ultimate elimination of brucellosis, and the potential for quarantine of bison that test negative for brucellosis.

In May of 1999 the federal agencies proposed a modified preferred alternative to Montana that addressed the dual goals of protecting Montana's cattle industry while minimizing the unnecessary killing of bison. It emphasized risk management and employed adaptive management techniques allowing for tolerance of some bison outside the park during winter when cattle are not present on public lands. Through November of 1999 the federal agencies continued to work with Montana on the modified preferred alternative, responded to comments on the draft EIS, and continued to work on the final EIS.

During the discussions on the final preferred alternative, the federal agencies reached an impasse with Montana, which was precluding completion of the final EIS. Consequently, the federal agencies exercised the option to withdraw from the MOU on joint lead status with Montana. In December the federal agencies sent the required 30-day notice of intent to withdraw from the 1992 MOU. The letter explained the reasons for the withdrawal and that the federal agencies would proceed with completion and issuance of the final EIS and ask for dismissal of the pending suit as provided for in the Settlement Agreement.

The U.S. District Court upheld the federal agencies withdrawal but asked that the agencies agree to a 30-day voluntary mediation to try to resolve the impasse. The federal agencies and Montana have been participating in that mediation from April through September and it is continuing. In the interim, the federal agencies completed the final EIS and distributed it to the public for a 30-day comment period. The voluntary mediation is continuing with Montana and is expected to be completed with a Record of Decision completed on the long term plan by year's end.

The Greater Yellowstone Interagency Brucellosis Committee, comprised of several state and federal agencies, is continuing to work on various issues regarding brucellosis in wildlife--notably bison and elk--and potential threats to the livestock industry in the greater Yellowstone area. The exchange of information and completion of tasks are proceeding very slowly.

On August 31, 1999, a final agreement was reached on the purchase and easement of approximately 7,800 acres of critical wildlife migration and winter range habitat for a multitude of species, including bison, elk, mule deer, pronghorn, bighorn sheep and antelope. The United States

Government worked to secure funding to support this acquisition and, consequently, Congress appropriated money for the purchase.

The U.S. Department of the Interior is working diligently with other federal agencies and the state of Montana on a bison management plan that will prevent the kind of widespread slaughter of bison witnessed in the winter of 1996-1997.

LAKE TROUT

Yellowstone Lake remains home to the premier surviving inland native cutthroat trout fishery in North America. Elsewhere, human activities have resulted in the widespread extirpation of the Yellowstone cutthroat trout across its historical home range. Cutthroat trout play a critical role in the Yellowstone Lake ecosystem and provide an essential link to park terrestrial ecosystem's community as prey for up to 42 avian and mammalian predators and scavengers. The cutthroat trout population in Yellowstone Lake also supports a fishery estimated to value over $36 million yearly. Discovery in 1994 of illegally introduced lake trout in Yellowstone Lake has created extreme anxiety about the structure and dynamics of the lake's aquatic community, particularly the native Yellowstone cutthroat trout, as well as the terrestrial predators and scavengers which utilize the native fishery. Lake trout have reproduced in Yellowstone Lake and exist in at least six age groups, numbering in the tens of thousands. A highly piscivorous, non-native species, lake trout will continue to thrive in Yellowstone Lake and may reduce the existing native Yellowstone cutthroat trout population by 90%. Efforts to control lake trout through gillnetting, in place since 1995, were almost doubled in FY2000 (over FY99 numbers), resulting in the elimination of over 11,000 lake trout. Fisheries biologists estimate that an adult lake trout will eat 50 cutthroat trout each year. With the purchase of a lake trout gillnetting tug (scheduled to arrive April 2001), we can increase effort another fivefold. This increase in gillnetting effort will allow us to reach our goal of eliminating 50% of the lake trout population annually.

CONCESSIONS

The Concessions Management Division has been renamed the Business Management Division.

Hamilton Stores, Incorporated:
The 30-year contract between Hamilton Stores Incorporated and the National Park Service expired September 30, 1999, and was extended through December 31, 2000. The prospectus for this contract action was issued on October 2, 2000. Ninety days will be allowed for responses. Proposals are due on January 2, 2000. The purchase price for Hamilton Stores' assets will go into arbitration, which will result in Hamilton Stores continuing to operate through the summer of 2001.

The Old Faithful Photo Shop and the Mammoth Nature Store (both owned and operated by Hamilton Stores) will be permanently closed at the end of the 2000 operating season. The Photo Shop will be removed from its present location subject to compliance. The Nature Store will be used for purposes other than visitor services.

Amfac Parks and Resorts:
The staff is currently working on the prospectus for renewal of the Amfac Parks and Resorts' Contract. This contract expires on October 31, 2001. Prior to issuing a new contract a building condition assessment needs to be completed on the more than 800 government-owned buildings currently assigned to Amfac. The assessment will identify maintenance deficiencies.

Winter Operators:
The winter snowmobile and snowcoach contracts expire on December 31, 2000. Pending finalizing the National Park Service Winter Use Plan and EIS, these authorizations have been extended through this season's operation. A prospectus will be issued in the spring. Existing snowmobile operators have been advised that they can add a snowcoach to their current operations. This should help alleviate the NPS concern that when the park restricts winter use to snowcoaches only, adequate winter transportation will be available.

Yellowstone Park Medical Services:
The permanent Mammoth Clinic physician is leaving the practice. The Business Management Division is meeting with several physicians and a Montana physician's residency program to find a replacement.

Private consultants interested in working on a medical fee analysis and to assist in determining future park medical needs are being contacted for proposals.

Yellowstone Park Service Stations:
The Joint Venture Agreement for operation of the service stations expired on September 30, 1999 and was extended through December 31, 2000. Work is underway for this contract renewal.

The National Park Service has informed YPSS that effective this winter (2000-2001) they will have Ethanol available at the Mammoth Warming Hut and the Old Faithful lower station for snowmobile and snowcoach operations.

Horse Outfitters:
These permits expire on December 31, 2000. Work is underway for contract renewal.

General:

All commercial operators are expected to receive satisfactory or marginal ratings under the formal Concessions Review Program for the 2000 operating year. This includes ratings for Safety, the United States Public Health Service and the National Park Service Concessions Review Program. Significant deficiencies exist and improvements are needed in guest and employee facilities throughout the park. The majority of these improvements require funding which is not currently available through concession contracts or the National Park Service. Many of the facility deficiencies were noted in historic structures reports such as the Old Faithful Inn, Lake Hotel, Roosevelt Lodge, Old Faithful Lodge, Lake Lodge and Mammoth Hotel.

A new 77 site concessoner employee RV park has been constructed at Lake and grease traps have been installed at the Lake Hotel and Lake Lodge.

VISITOR EDUCATION CENTERS

Canyon Visitor Education Center

Planning has begun to rehabilitate Canyon Visitor Center using Recreation Fee Demonstration Project funds and Harpers Ferry Center major rehab program funds. This project includes correcting structural problems and expanding the building from 11,000 to 22,800 square feet to accommodate increased visitor use and new functions in the building. Visitors currently have no access to comprehensive information and education about the park's geologic features—yet geology is the park's major theme and the reason Yellowstone National Park was established. The project includes the development of exhibits on major geologic stories and features of Yellowstone. The facility will include a theatre, classroom, geology exhibits hall, classroom, backcountry permitting office, and other spaces.

FY 2000 progress includes the following:

A Mission 66 assessment package was developed and sent to the regional Mission 66 Advisory Team and Wyoming SHPO. As a result, the Canyon Village Plaza was determined eligible for National Register listing with concurrence by SHPO. The park worked with SHPO to revise building drawings to reflect a Craftsmen style architecture similar to the former Canyon Hotel and to be more compatible with the Mission 66 architecture of the other structures in the development. The preparation of an Environmental Assessment is underway.

Interpretive themes for the visitor education center exhibits were finalized. An exhibit design contract was awarded to Gallagher and Associates (Washington, D.C.). Schematic development for the exhibits is underway.

Congress approved the Recreation Fee Demonstration funding for the project. The project completion target date is spring 2004. The total project cost is $8,566,350.

Old Faithful Visitor Education Center

Yellowstone Park Foundation, in cooperation with Yellowstone National Park, the National Park Foundation, and Yellowstone Association, initiated a major fundraising campaign to develop a state-of-the-art visitor education center at Old Faithful. Unilever Corporation of America provided an initial donation of $1.25 million toward the project. This facility will serve over 2,600,000 visitors to the Old Faithful area each year. It will include exhibits that will help the public understand, appreciate, and help protect the rarest hydrothermal resources on the planet today - the geysers of Yellowstone. The facility will include a theatre, classroom, geothermal exhibits hall, a fine arts/travelling exhibits hall, library and research area, backcountry permitting office, and other spaces.

FY 2000 progress includes the following:

Scoping for the project was initiated in June and letters were sent out involving the public in a comment period ending July 24. Preparation of an Environmental Assessment is underway. The two primary issues to be dealt with are the effects on the new structure on the geothermal resource and the effect of the proposed design on the historic district.

Consultation continued with the Wyoming SHPO and the Advisory Council on Historic Preservation.

Through the Yellowstone Park Foundation, the park initiated discussions with Maya Lin (designer of the Vietnam Veterans Memorial) to design exterior spaces related to the new visitor education center.

Interpretive themes and content development for the Old Faithful Visitor Education Center exhibits continued with a team of world class scientists from USGS, universities, and the park participating in two workshops. These workshops also involved the Geyser Observation and Study Association and park staff whose job is to interpret the hydrothermal features. The most recent workshop was held in July, and now a major interpretive themes package is completed. Concurrently, we have had some very encouraging discussions with MSU, NASA's Astrobiology Institute and their education staff from Goddard Space Center as likely partners on supporting the exhibit development. We have also, some very nice offers of donations of recorded natural sound materials, animated fly-throughs, and other animations from a variety of sources.

The total project cost is $18,023,449. The NPS has committed $3,023,449 of the project funds for exhibits. Yellowstone Park Foundation raised approximately $5,000,000 toward the project in FY2000, bringing total private funding raised for the project to over $6,500,000.

VISITOR USE

The ever-increasing visitor pressures on the natural and cultural resources of the park, as well as quality visitor experiences, have been of concern to managers for many years. Yellowstone, in conjunction with Grand Teton National Park, the states of Montana, Idaho, and Wyoming, the U.S. Forest Service, and several county governments within the greater Yellowstone area, are working together to deal with the problem, starting with winter use. Since the 1990 completion of the Winter Use Plan, winter use numbers have increased significantly beyond the plan's projections. In response to this increase, NPS and USFS staff began work on a coordinated interagency report on Winter Visitor Use Management in 1994. The interagency staff produced a final report, *Winter Visitor Use Management; A Multi Agency Assessment (1999)*, which identified a number of concerns and issues regarding winter use in the greater Yellowstone area.

In the spring of 1997, the Fund for Animals and other organizations and individuals filed a lawsuit against the NPS; the litigation was settled in November of 1997. Under the modified agreement, the NPS agreed to prepare a new winter use plan and corresponding EIS by November 2000. A Final Winter Use Plan and a Final Environmental Impact Statement for Yellowstone and Grand Teton National Parks was being readied for public distribution as of the end of the year. The goal of the final plan is to provide future winter visitors in Yellowstone with a full range of quality winter experiences. These recreational experiences must not take place where they will adversely impact sensitive natural resources, wildlife, cultural areas, or the experiences of other park visitors. In response to the issues that have been raised and the legal framework regarding visitor use in national parks, and especially the use of snowmobiles, the National Park Service has proposed that recreational use of snowmobiles be banned in Yellowstone National Park as of the winter of 2003-2004. Instead, snowcoaches would provide the majority of access to the parks.

In order to assess the impact of winter recreation on park resources and visitor experience, several studies have been accomplished. These include a characterization of snowmobile particulate matter, use of oxygenated fuel, effects of snowmobile use on snowpack chemistry, toxic air pollutants emitted from snowmobiles, winter visit and visitor characteristics, and bison use of winter road monitoring.

Yellowstone has begun to address summer visitation, primarily through transportation and energy studies. Understanding traffic patterns, vehicle sizes, and possible alternative modes of transportation has been the focus of the two studies. One study looked at alternative modes of transportation on a number of road segments, including park-wide transit options. The other study concentrated on Yellowstone's highest elevation (and lesser used) road segment over Dunraven Pass. The park is working with the Western Transportation Institute at Montana State University to study and implement pilot projects in a rural "intelligent transportation system" program in the greater Yellowstone area. The park is also participating in the Greater Yellowstone-Teton Clean Cities Coalition, which is looking at energy for transportation and buildings in the parks and communities around the parks to help the area achieve Energy Policy Act and Clean Air Act requirements. The Clean Cities concept is to integrate the energy systems so that fleet managers and the public can have consistent and reliable alternative fuels available throughout the region. As part of the Clean Cities effort, Yellowstone is cooperating with the Idaho National Engineering and Environmental Laboratory to look at integrated solutions to transportation and energy for Gateway Communities and National Parks in the Western United States.

ASSESSMENT OF WATER AND SEWAGE SYSTEMS

In August 2000 a contract was awarded to replace the Old Faithful wastewater treatment plant. The action is needed because the existing treatment process does not meet the present requirements of the Water Quality Standards for Wyoming Groundwater, Section 35-11-101 through 1104 of the Wyoming statutes. Each year a decrease in groundwater quality is evident. About a million gallons of partially treated sewage have been spilled in the past few years due to the aging facility. Construction for the Old Faithful wastewater treatment plant began in the late summer of 2000 and is expected to be completed by 2003.

The Old Faithful wastewater treatment plant is not the only treatment plant failing in the park. Yellowstone operates water and/or wastewater systems in 23 different areas. Each area may have more that one system (i.e. Tower Junction has three separate sewer systems and one water system). Day-to-day operations are occurring, but preventive and cyclic maintenance is minimal to nonexistent due to lack of funding. Some systems have fairly new treatment facilities but may be served by old, failing collection systems. Other treatment and collection systems are totally outdated or overloaded to the point where failure has occurred or is imminent. Upgrading components may solve some risks of environmental contamination or health hazards, but other risks such as plugged sewer lines from users dumping large items down the sewer can only be reduced. The advent of disposable diapers has resulted in increased plugs from users improperly disposing of these items into the sewer. Education would help minimize these problems but would never prevent all line plugs and overflows. The park's high use of vault toilets is another source of problems. Users dispose of a wide variety of items into these vaults, which are then pumped into nearby sewer systems. Unless the system has a septage receiving station that screens out the large items, these items get into the system, plug lines or destroy equipment. Lightning strikes have also caused equipment and alarm systems failures. Increased manpower to provide more than daily inspections would resolve these problems sooner, but this is only one of the many operational changes that could help reduce pollution risks. The worst problems in the park require both operational and system upgrading to minimize risk of spills and groundwater pollution.

Park staff updated an assessment of all its water and sewage systems in FY 2000. The assessment and update is broken down by area and function, then rated with a general condition of risk and cost to mitigate or correct the risk. The following ten facilities were rated as the highest risk in 1999, with the work accomplished in 2000 noted: 1) replace the Old Faithful wastewater treatment plant; a contract was awarded in FY 2000 to replace the facility; 2) replace or install upgrades to grease traps parkwide - grease traps at the Old Faithful Lodge and Inn, as well as at the Grant Village marina restaurant were completed in FY 2000. Contracts for the replacement of grease traps at the Lake Hotel and Lake Lodge were awarded in late FY 2000; 3) upgrade the Old Faithful lift stations - both the Old Faithful Lodge and Old Faithful Inn lift stations were upgraded in FY 2000; 4) upgrade the Lake lift station - the Lake Lodge lift station was upgraded in FY 2000; 5) replace Norris water and wastewater systems - the replacement of the Norris water and wastewater systems is currently in the FY 2001 Line Item construction program; 6) replace the Madison wastewater treatment system - the Madison wastewater system is currently in the FY 2002 Line Item construction program; 7) install standby generators at lift stations - standby generators were installed at the Lake Lodge, Old Faithful Inn, and Old Faithful Lodge lift stations in FY 2000. There are still a number of lift stations that do not have standby generators; 8) upgrade Old Faithful water treatment and distribution systems - no work was done on this in FY 2000. Work is planned sometime within the next two years; 9) increase the number of alarm systems - no substantial alarm work was done in FY 2000; and 10) replace the Northeast water and wastewater systems - the Northeast sewage system was under construction in FY 2000 with completion expected in FY 2001. The work listed in the assessment has been submitted for funding from various sources. Although they are a top priority, the park has a wide variety of other deficiencies such as roads, trails, buildings, and other utility needs.

GREENING OF YELLOWSTONE

In FY2000 the park continued to place greater management emphasis on the "Greening of Yellowstone." This program addresses sustainable design, less toxic substances, alternative fuels, ride sharing, recycling, and joint composting facilities. Park employees continued to place strong a special emphasis on the purchase, storage, and use of semi-toxic chemicals. Also this past year, efforts were expanded into new areas being evaluated for inclusion into the "green products" program, such as some concessions operations and fleet facilities.

As part of the implementation of the Greening of Yellowstone Initiative, Yellowstone has participated in the Greater Yellowstone-Teton Clean Cities Coalition since late summer 1998. In FY2000 the Coalition has submitted a clean cities plan to the U.S. Department of Energy which address alternative fuels (compressed natural gas, liquefied natural gas, ethanol, bio-diesel, propane for use in vehicles and structures in and near the park). It is expected that an official Clean Cities designation will occur in the spring of 2001.

During the past year, the Park continued to pursue the practical applications of alternative fuels. In addition to operating all of the Park's unleaded-fueled vehicles on a 10% blend of ethanol (E10), funding has been secured to make to E10 available at all public gas stations within the Park. Also, the Bio-diesel program has expanded to include Old Faithful and Lake Village. Additional tanks have been purchased to store bio-diesel for use in the park owned buses and garbage trucks. The replacement of conventional, chemically treated boardwalk lumber with plastic lumber continued throughout the Park.

During FY2000, funding was secured to convert a conventional fossil-fueled generator to a Photo Voltaic system at the Lewis Lake campground. It is anticipated that about 70% of all electrical demands will be met with the new system.

ROADS

Yellowstone has an integrated, methodical, long-term program to improve the condition of the park's 466 miles of road (310 miles are paved and considered primary roads, with most open to public use at least six months out of the year; another 156 miles are secondary paved or gravel roads). Yellowstone's roads were never designed for the volume, size, and weight of vehicles that travel through the park today. As of 2000, over 35 percent of paved roads are in fair to very poor condition, resulting in unsafe driving conditions and resource damage. A funding commitment has been established that will allow a progression of road improvement projects through 2004, with an ongoing program through 2017 to upgrade the remaining roads in the park. Deteriorated roads contribute significantly to adverse effects on park visitor experiences and adversely effect resources through erosion and silt due to poor drainage, etc.

A multidisciplinary team has been established to work with the Federal Highway Administration relating to the expenditure of $280 million of Federal Highway/park road funds. The team works to ensure that all decisions related to road reconstruction, realignment, parking, etc. are in the best long-term interest of park resource preservation. The environmental documents produced by this team receive full-scale review and comment. The surrounding communities are extensively involved in construction schedules, staging, and project coordination.

In FY 2000, work was completed on the reconstruction of roads at Fishing Bridge Junction and near Arnica Creek, between Lake Junction and West Thumb Junction. A portion of the section of road between Lake Junction and Gull Point was rehabilitated.

NUCLEAR WASTE TREATMENT IN IDAHO

The Idaho National Engineering and Environmental Laboratory (INEEL) in Idaho Falls, Idaho, has responsibilities for a wide variety of defense engineering and environmental process design and mitigation programs. INEEL, an agency of the Department of Energy (DOE), has one of the largest stockpiles of transuranic (plutonium-contaminated) waste in the world, much of it since the 1970s. The state of Idaho expressed concern that the waste would contaminate the Snake River Plain Aquifer, a vital watershed; DOE assured the state that the waste would eventually be removed. In 1995, this promise became formalized in a court settlement that required DOE to remove all transuranic waste from Idaho by 2018. A series of projects have been proposed to implement this agreement.

In the past two years, two projects have been proposed that brought Yellowstone National Park into the picture. The first was a proposal to build a waste treatment facility to treat advanced mixed waste. The treatment is necessary so the waste can be transported to a long-term storage facility outside of Idaho. The facility would retrieve, sort, characterize, and treat approximately 65,000 cubic meters of transuranic waste, alpha-contaminated low-level mixed waste. DOE prepared an EIS on this project in 1998 and provided opportunity for public review and comment. The EIS for the treatment facility was completed and issued by the DOE in January 1999. Some of the mixed waste contains PCBs that must be removed before the waste can be transported and stored. In the Advanced Mixed waste proposal, an incinerator was proposed to remove the PCBs from the waste material. This incinerator raised concerns about the spread of nuclear radiation well beyond the boundaries of INEEL.

A non-profit organization in Jackson, Wyoming is opposed to the facility. The group, "Keep Yellowstone Nuclear Free," is concerned about possible pollutants that could be released into the airshed, adversely affecting air quality of areas downwind from the facility (Yellowstone, Grand Teton, and the town of Jackson). They also believe DOE did not provide adequate notification or time during the EIS comment period, and they want that opportunity. An agreement was reached to review the proposed incinerator aspect of the project.

The National Park Service evaluated the EIS and commented only that the proposed action would not adversely affect Craters of the Moon National Monument, the nearest Class I NPS unit to the proposed facility. The comments did not address potential affects to Yellowstone or Grand Teton National Parks, since these park units are an additional 70 miles further away from the site than Craters of the Moon and are downwind. Yellowstone National Park management requested a second review in August 1999, and the results of that review were the same. Currently, Yellowstone and Grand Teton are gathering data and studying the issue to determine possible impacts to Yellowstone.

In a separate project, INEEL has proposed a High-Level Waste and Facilities Disposal project through a Draft Plan and EIS released in January 2000. The NPS also reviewed this EIS, and identified a number of deficiencies in the analysis that it requested that the Department of Energy address in preparing the Final Plan and EIS for this project.

FINANCIAL OVERVIEW

The park's expenses have increased faster that inflation because of factors such as legislated personnel costs, higher visitation and longer visitor seasons. With most of the park's funding needed to pay fixed costs, such as salaries and benefits that are largely beyond their control, park managers must either make unpopular decisions (such as closing facilities) or reduce the amount available to spend on the highest priority needs (such as cyclic maintenance). Without adequate funding of critical maintenance programs, the park's infrastructure has deteriorated, creating an enormous backlog of projects that must be undertaken in order to protect the nation's investment in Yellowstone.

In fiscal 2000 Yellowstone made no gains in total Operations and Maintenance funding. Base funds provided in the congressional appropriation increased by $1.1 million (4.6%). However, $140,000 was reprogrammed for fee collection costs to parks not included in the fee demonstration program and $30,000 was reprogrammed for servicewide FLETC training. The net increase of $930,000 represents a 3.9% increase over FY1999. These funds have to cover inflation, the general schedule salary increase of 4.69%, the Federal Wage System average salary increase of 3.5% and a new park program, leadership of the Greater Yellowstone Coordinating Committee.

ANNUAL GOALS

Annual goals are the current year's increments toward achieving the park's long-term goals. Long-term goals, in turn, are five-year increments toward achieving mission goals. Mission goals are statements of ideal conditions pursued "in perpetuity" to achieve the mission of Yellowstone National Park. The annual goals below, therefore, are listed in the context of their long-term and mission goals. Please see the park's Strategic Plan and FY99 Annual Performance Plan for details and background on mission, mission goals, and long-term goals.

Goal Category I: Preserve Park Resources

By Act of Congress on March 1, 1872, Yellowstone National Park was "dedicated and set apart as a public park or pleasuring ground for the benefit and enjoyment of the people" and "for the preservation, from injury or spoliation, of all timber, mineral deposits, natural curiosities, or wonders . . . and their retention in their natural condition." The mission goals and long-term goals in Goal Category I are inclusive of this mandate and the NPS Organic Act ". . . to conserve the scenery and the natural and historic objects and the wildlife therein. . . ." Subsequent legislation reinforced and expanded these authorities.

Mission Goal Ia: *Yellowstone's natural and cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.*

- Bulleted goals are Long-term Goals to be achieved by September 30, 2005.

  - Ia1a. Disturbed Lands - Fifty-four of the 77 acres of disturbed park lands targeted as of 1997 are restored.

This goal improves resource conditions in Yellowstone by restoring lands impacted by former uses. Disturbed lands are those park lands where the natural processes have been impacted by development, such as roads and mines, and by invasion of alien species.

Ia1a. FY00 Annual Goal: By September 30, 2000, 50 of the 77 acres of disturbed park lands targeted as of 1997 are restored.

Goal Achieved

Projected Costs (All Sources) - $134,000	Projected FTE - 14.0
Actual Costs (ONPS Base) - $130,128	Actual FTE - 9.67
Actual Costs (Other Sources) - $37,200	

Yellowstone has 77 acres of land identified in its 1995 Resource Management Plan that have been disturbed by prior physical development (11.5 acres at Little Thumb Pit, 23 acres at Dry Creek, 30 acres at Turbid Lake Road and Trail, 13.8 acres at Ice Lake Pit). This is the acreage that will be restored by 2002. We have to date restored 50 acres (this includes 3 new acres restored on the Turbid Lake Road in FY00). The restoration of the Ice Lake Pit will be completed when more road construction occurs in the Canyon area. The primary source of funding for this goal comes from Federal Highways road construction projects.

The goal was measured for actual achievement by taking the total number of acres in the sum of the four restoration projects (Little Thumb Pit, Dry Creek, Turbid Lake Road and Trail, and Ice Lake Pit) and subtracting the number of acres restored.

  - Ia1b. Exotic Species - Sixty percent (60%) of the priority acres containing exotic species targeted as of 1997 have been contained (each year).

This goal improves resource conditions in Yellowstone by containing invasive plants, including leafy spurge, sulphur cinquefoil, and spotted knapweed.

Ia1b. FY00 Annual Goal: By September 30, 2000, 439 of the 732 priority acres containing exotic species targeted as of 1997 have been contained.

Goal Achieved

Projected Costs (All Sources) - $565,000	Projected FTE - 10.9
Actual Costs (ONPS Base) -$256,025	Actual FTE - 13.49
Actual Costs (Other Sources) - $269,388	

This goal is not a cumulative goal. Yellowstone weed crews have to go to the same 732 acres of spotted knapweed, wooly mullein, field bindweed, orange hawkweed and leafy spurge each year. The park's strategy for these weeds is simply containment, not eradication.

Yellowstone's weed management strategy follows the concepts of Integrated Weed Management (IWM), a modern strategy for containing and controlling weeds within acceptable environmental parameters for using herbicide and other means of controlling weeds.

The IWM strategy has five basic components: 1) Prevention, 2) Early Detection and Eradication, 3) Containment, 4) Inventory and Monitoring, and 5) Education.

All of the weeds listed under this goal fall into the containment category. We simply do not have the staff, nor do we want to use the amount of chemical required to eradicate these weeds. Spotted knapweed seeds are viable in the soil for 7-10 years; other species' seeds are viable for even longer. Even if the weeds are not seen in an area in which we have controlled them, we cannot assume they have been eradicated. We have to keep checking the area for 7-10 years (for spotted knapweed) and longer for other species (like leafy spurge, whose seeds are supposedly viable for 30 years!).

Thus, Park staff keeps containing the same 439 acres each year. We consider this a victory! If we can keep these weeds from spreading, that is, if containment works, we have won the battle. We never expect to be able to walk away from this battle with weeds. Park staff will always have to keep pressure on them. That is why we put so much effort into prevention and early detection. Once a weed gets established and starts spreading seeds, it is almost impossible to eradicate.

Nationally, this is a cumulative goal for acres restored from year to year. Consequently, this goal does not fit well into the national goal. However, Yellowstone's goal is an important goal and the strategy has been reviewed and approved by weed experts from several local universities.

The goal is measured for actual achievement by taking the total number of acres in the sum of acres of targeted weeds and subtracting the number of acres contained for the year.

- **Ia2a. Threatened and Endangered Species - Improving T&E Species** - One of the four identified park populations of federally listed threatened and endangered species with critical habitat on park lands or requiring NPS recovery actions has an improved status.

Goals Ia2a and Ia2b track the status and stability of populations of federally listed threatened and endangered species identified by 1997 and recorded in the National T&E Database (gray wolf, grizzly bear, bald eagle, peregrine falcon). The populations consist of those T&E species with critical habitat on park lands as well as those species requiring NPS recovery actions. The baseline will be updated regularly to reflect those species identified and recorded in the National T&E Database between 1997 and 2002.

Ia2a. FY00 Annual Goal: By September 30, 2000, the reintroduced gray wolf population continues to improve.

Goal Achieved

Projected Costs (All Sources) - $326,000	Projected FTE - 3.8
Actual Costs (ONPS Base) - $303,169	Actual FTE - 4.57
Actual Costs (Other Sources) - $17,500	

The Yellowstone wolf population has grown steadily since reintroduction in 1995; that growth leveled off in 2000. Fourteen and 17 wolves were released in 1995 and 1996, respectively. That population grew to 86 wolves in 1997, 110 in 1998, and approximately 160 to 170 in 1999 and 115 to120 in 2000. This is one of the highest growth rates ever recorded for a wolf population. Population expansion by wolves was so great that only two reintroductions were necessary when originally three to five were planned. The Rocky Mountain Wolf Recovery has defined 10 breeding pairs for the Yellowstone area as a goal; 1999 marks the first time that goal has been achieved.

The fate of Yellowstone and central Idaho's reintroduced wolves was argued before a three-judge panel of the 10th U.S. Circuit Court of Appeals in Denver on July 29, 1999. The Court had to decide whether to uphold a lower court order that says the wolves, reintroduced in 1995 and 1996, must be removed. The Tenth District Court made a final decision on the case on January 13, 2000 stating that the wolf reintroduction in Yellowstone National Park and central Idaho was legal.

Park biologists and cooperative researchers monitor and study the wolves using up-to-date techniques to track the wolves' behavior. The wolves are closely monitored to learn about their effects on other ecosystem inhabitants, to respond to any problems that may arise, and to determine if and when the goal of a self-sustaining population of wolves has been reached.

- **Ia2b. Threatened and Endangered Species - Stable T&E Species -** Three of the four identified park populations of federally listed threatened and endangered species with critical habitat on park lands or requiring NPS recovery actions have stable populations.

Ia2b. FY00 Annual Goal: By September 30, 2000, three of the four populations of federally listed threatened and endangered species identified in 1997 as having critical habitat on park lands have stable populations.

Goal Achieved

Projected Costs (All Sources) - $522,000 Projected FTE - 7.8
Actual Costs (ONPS Base) - $504,699 Actual FTE - 7.76
Actual Costs (Other Sources - $0

The grizzly bear population has been stable to increasing at the rate of 1 to 4 percent per year since 1986. Human-caused mortalities and habitat loss remain long-term concerns in managing grizzly bears. The population objectives outlined in the Grizzly Bear Recovery Plan have been met twice, in 1994 and again in 1998. If objectives are met for two consecutive years and a Conservation Strategy for long-term management of bears and their habitat is completed, the population may be considered for delisting. The Greater Yellowstone Ecosystem Subcommittee is a part of the Greater Yellowstone Inter-Agency delisting of the grizzly bear. The park has been a productive and committed partner in the preparation of the new conservation strategy.

In 2000, 14 different female grizzly bears with a total of 26 cubs-of-the-year were observed in the YNP portion of the ecosystem. Some of these females had home ranges entirely within YNP while others frequented areas both inside and outside the park. The average litter size of females observed in the park was 1.9 cubs. Grizzly bear family groups observed in the park included 3 one-cub litters, 10 two-cub litters, and 1 three-cub litter.

The 14 females with cubs counted were observed in widely separated areas of the park indicating a good distribution of adult females and cub production throughout the park. There were no known human-caused grizzly bear mortalities in YNP in 2000.
In 1995, the USFWS downlisted the bald eagle from endangered to threatened due to significant continental population gains. Certain populations, however, are not completely recovered due to two main obstacles: 1) heavy metal problems in the Great Lakes region, and 2) habitat encroachment and development along riparian zones in the southwestern United States. In Yellowstone the bald eagle population continues to gradually increase. In 1998, 15 eaglets fledged from 22 active nests; in 1999, 14 eaglets fledged from 26 active nests; in 2000, 17 eaglets fledged from 27 active nests. The USFWS is expected to delist the bald eagle fall 2000 or winter 2001
In August 20, 1999 the USFWS delisted the peregrine falcon by removing it from Endangered Species Act protection. Peregrine falcons are doing remarkably well on a continental scale. In 1998, Yellowstone recorded 22 fledglings from 13 nesting pairs. Yellowstone continues to be a stronghold for peregrine falcons in the Northern Rockies.

The goal was measured through monitoring and research programs, as funding permitted, and via environmental indicators.

- **Ia3. Air Quality** -- Air quality in Yellowstone National Park has not degraded from the 1997 levels.

This goal tracks three indicators of air quality: visibility, ozone, and sulfate and/or nitrate deposition.

Ia3. FY00Annual Goal: By September 30, 2000, the air quality in Yellowstone National Park has not degraded from 1997 levels.

Goal Achieved

Projected Costs (All Sources) -$183,000	Projected FTE - .6
Actual Costs (ONPS Base) - $32,350	Actual FTE - 0.74
Actual Costs (Other Sources) - $11,948	

Yellowstone is designated a Class I airshed under the Clean Air Act - intended to have the cleanest air for our citizens to breath. While the park's isolation from urban and industrial areas provides some buffer from major point sources of air pollution, research in many ecosystems now shows that airborne pollutants affect air quality and visibility hundreds of miles distant.

In FY00, there were no recorded violations of Yellowstone's air quality. Three studies (by George Ingersoll, NIOSH, and Norman Kado) plus the State of Montana's carbon monoxide monitoring were underway over the course of the past year to further document the park's winter air resource issues and to investigate different aspects of the winter air issues. In addition, the NPS helped sponsor the Clean Snowmobile Challenge 2000, which occurred in March. Students from seven universities from across the United States and Canada competed in Jackson, Wyoming to produce a cleaner, quieter snowmobile that maintained or improved performance characteristics.

Operation of the IMPROVE and NADP/NDDN stations continued. The NPS Air Resource Division transferred $11,000 to the park for Resource Protection park staff salaries to operate the equipment.

The park continued to participate in the Greater Yellowstone Area Clean Air Partnership, sharing information on monitoring, research, and issues. The park also continued to participate in the Greater Yellowstone-Teton Clean Cities coalition. The coalition has brought together federal, state, and local agencies along with businesses and non-government organizations that are striving to put into place the infrastructure and vehicles to improve the use of alternate fuels (such as natural gas, propane, ethanol, and biodiesel) in the Greater Yellowstone area. A draft Clean Cities Plan was completed and submitted to the U.S. Department of Energy for approval.

As an adjunct to the Clean Cities effort, Yellowstone and Grand Teton are working with the Idaho National Environmental and Engineering Laboratory and many other partners to begin an analysis of the energy, transportation, infrastructure, and information systems in the Greater Yellowstone area.

Gasohol (10% ethanol blend) is used exclusively in all park gasoline-powered vehicles. Modifications were made to stations in FY00 so that gasohol will be available at service stations at Old Faithful (lower station), Mammoth and Flagg Ranch beginning the winter of 2000-2001. Other "greening" actions are noted in the Water Quality results.

In September 1998, the Idaho National Engineering and Environmental Laboratory, Department of Energy issued a Draft Environmental Impact Statement for the Advanced Mixed Waste Treatment Project. Park staff are assessing the possible impacts from the proposed project's emissions to Yellowstone National Park.

Unanswered questions about the health effects of snowmobiles on visitors and other park employees and about how snowmobiles affect the Yellowstone ecosystem make monitoring and interpretation of Yellowstone's air quality a continued necessity. Air quality impacted by snowmobile emissions is addressed in the Park's *Winter Use Plan Final Environmental Impact Statement.*

The goal was measured by monitoring visibility, ozone, and acid deposition levels in the park.

- **Ia04. Water Quality** - Restore and maintain the integrity of the park's water resources in their natural condition (as of 1997), free of pollutants generated by human activity as measured by having zero (0) violations of NPDES permits.

This goal will continue to monitor groundwater, water facilities, and natural water quality to prevent water quality degradation.

Ia04. FY00 Annual Goal: By September 30, 2000, there have been no violations of NPDES permits.

Goal Achieved

Projected Costs (All Sources) -$38,000	Projected FTE - .4
Actual Costs (ONPS Base) - $36,641	Actual FTE - .36
Actual Costs (other Sources) -$0	

Park rivers remain undammed and water quality in most lakes and streams is thought to be high, though monitoring is irregular. Outdated wastewater treatment systems threaten groundwater and surface water purity in several locations. The Old Faithful wastewater treatment facility is still impacting groundwater, but a contract for a new sewage plant was awarded in FY2000 to correct this situation. No new NPDES violations were received in FY00.

Park maintenance staff and biologists continue to monitor groundwater and surface water quality. The annual sampling of monitoring wells around the sewage plants was accomplished as scheduled in FY00.

This goal is measured by counting the number of NPDES violations that occur.

- **Ia05. Historic Structures -** One hundred percent (100%) of the historic structures in Yellowstone are on the List of Classified Structures (LCS).

This goal increases the number of structures listed on the 1998 List of Classified Structure; there are 1200 records waiting to be listed. Accomplishment of the goal is entirely contingent upon soft money; once funding is ascertained, a percentage target will be set.

Ia05. FY00 Annual Goal: By September 30, 2000, 468 Yellowstone National Park historic structures added to the LCS after 1998 are in good condition.

Goal Exceeded

Projected Costs (All Sources) - $78,000	Projected FTE - 1.2
Actual Costs (ONPS Base) - $75,724	Actual FTE - 1.19
Actual Costs (other Sources) - $0	

Yellowstone has 912 buildings and structures entered into the List of Classified Structures (LCS). Of the 912 buildings and structures, 473 are currently designated in good condition. However, many of the condition assessments are outdated and likely not to reflect the current status.

A parkwide historic structures inventory was completed in FY00. However, the inventory does not include current condition, cost estimates, or management categories. The IMR office, with the assistance of cultural resource staff, began updating Yellowstone's LCS this summer. The Lamar Buffalo Ranch Historic District (7 structures) was updated before the end of the fiscal year, and entered into the LCS. Current information is available for the Yellowstone Park Transportation Company Historic District (20 structures) and the Bechler River Ranger Station Historic District (7 structures), but has not been transmitted for entry into the LCS. The Roosevelt Lodge Historic District (151 structures) update is almost complete, and work will begin in FY01 on the Mammoth Hot Springs Historic District (206 structures).

This goal was measured using total number of historic structures that are placed on the LCS and shown in good condition.

- **Ia6. Museum Collections -** Fifty-five percent (55%) of preservation and protection conditions in Yellowstone's museum collections meet professional standards.

This goal increases the number of applicable checklist standards met for the preservation and protection of park museum collections, as identified in the "NPS Checklist for Preservation and Protection of Museum Collections." Yellowstone is unable to meet 100 percent of this goal because it does not have a collection storage facility.

Ia6. FY00 Annual Goal: By September 30, 2000, 177 of the 476 standards for preservation and protection conditions in the Yellowstone museum collection meet professional standards.

Goal Exceeded

Projected Costs (All Sources) - $105,000	Projected FTE - 2.2
Actual Costs (ONPS Base) - $19,673	Actual FTE - 1.77
Actual Costs (Other Sources) - $150,076	

This goal is measured by comparing the total number of applicable collection standards met to the number of applicable collection standards. The number of standards applicable to Yellowstone changed in the last year, due to changes in some museum facilities. In the FY2000 Annual Performance Plan, the stated goal was to meet "177 of the 476 standards," or 37% of standards by September 20, 2000. The park instead met 183 of 439 applicable standards, or more than 41% of standards.

Most of Yellowstone's museum collections and archives are housed in the basement of the Albright Visitor Center in Mammoth Hot Springs, which lacks adequate space, security, fire protection, and climate controls. The facility fails to meet the standards of the NPS or the National Archives and Records Administration (NARA), of which the park archives is an affiliate. After assessing the feasibility of adapting existing park facilities for this purpose, it is now clear that correcting this situation will require the construction of a new 30,000-square-foot building specially designed for collection storage, visitor exhibits, and wet- and dry-laboratory facilities for staff and researcher use. We have made a commitment to seek $10 to $12 million for a Yellowstone Heritage and Research Center complex to preserve and improve access to museum collections and archives, and to establish quality programs of natural and cultural history research. The park will receive $6.1 million from the NPS FY2002 line-item construction funds. During FY00, schematic drawings for the facility were prepared and public scoping for the Environmental Assessment was completed.

The museum collection consists of over 300,000 cultural artifacts and natural science specimens, including paintings by Thomas Moran and photographs by William H. Jackson; historic hotel furnishings, touring cars, and stagecoaches; American Indian artifacts; prepared birds, insects, mammals, and fish; fossils and geological specimens; and one of the most complete herbarium collections for high-altitude environments in the region. While the overall condition of the collection is considered fair to good, museum objects have not all been preserved, cataloged, and made available for appropriate use according to NPS standards.

A full-time curator is responsible for both the museum collection and photo archives and will spend about 10% of her time in FY01 supervising and contributing to work that will increase the number of applicable checklist standards met for the preservation and protection of park museum collections as identified in the checklist.

A full-time archivist is responsible for the non-photo archives. The archives are not yet listed as a facility on the checklist, but will be added during FY01. (It was originally thought that the archives' affiliation with NARA would make its inclusion on the checklist inappropriate, but this belief was dispelled in 2000 during consultation with the NPS Senior

Archivist.) This change to the checklist will result in an increase in the number of applicable standards to be met in the future.

This goal is measured by comparing the total number of applicable collection standards met to the number of applicable collection standards.

- **Ia8. Archeological Sites** - Forty percent (40%) of the recorded archeological sites in Yellowstone are in good condition.

This goal increases the number of recorded archeological sites listed on the 1997 Archeological Sites Management Information System that are in good condition. Good condition, as defined and adapted from the RMP Guideline, indicates that the site is stable and its archeological values are well preserved. A site in good condition is not deteriorating from either natural processes such as erosion or from human impacts such as vandalism or looting.

Ia8. FY00 Annual Goal: By September 30, 2000, 102 of the 508 recorded archeological sites in Yellowstone are in good condition.

Goal Exceeded

Projected Costs (All Sources) - $78,000	Projected FTE - .5
Actual Costs (ONPS Base) - $31,553	Actual FTE - .51
Actual Costs (other Sources) -$0	

Less than 2 percent of the park has been surveyed for archeologic resources and that mostly associated with road improvements and other construction projects. Little expertise and information have been provided to park staff and the public about archeologic resources. Publications and exhibits have been proposed but are dependent on funding.

Efforts have concentrated on identifying condition of sites with unknown condition. In FY99, there were 352 meeting this criterion. For the FY00 reporting year, there are 341. During this same time period, the sites in good condition increased from 102 to 107.

This goal is measured by comparing the total number of archaeological sites identified in good condition in the Archeological Sites Management Information System (ASMIS) to the number of sites recorded having good condition information.

- **Ia9. Natural Resources** - Ninety-five percent (95%) of the known self-sustaining and free ranging wildlife, native fish, and vegetation communities are preserved and maintained.

This goal targets many of the natural resource issues in Yellowstone, including cutthroat trout in Yellowstone Lake and bison.

Ia9. FY00Annual Goal: By September 30, 2000, 328 of the 346 known self-sustaining and free ranging wildlife, native fish, and vegetation communities are preserved and maintained.

Goal Achieved

Projected Costs (All Sources) - $4,717,000	Projected FTE - 65
Actual Costs (ONPS Base) - $430,233	Actual FTE - 76.89
Actual Costs (Other Sources) - $2,952,133	
Construction – $2,521,905	

Two million acres of largely undisturbed habitat appears to support viable populations of most native species. There are approximately 346 known self-sustaining and free ranging wildlife, native fish, and vegetation communities in Yellowstone.

The park is home to a viable, free-ranging population of more than 2,000 bison, controlled primarily by the toll of winter—but the unfenced and growing herd increasingly conflicts with other long-standing federal and state efforts to eradicate the disease brucellosis from domestic livestock. A draft environmental impact statement was released for public comment in June 1998. During the period allowing comment on the draft EIS, the NPS received 67,520 letters containing 212,249 individual comments. The dominant themes in the letters were bison management and the alternatives for bison management presented in the draft EIS. Following a lengthy review period, the final EIS was completed in September 2000. After a 45-day comment period, the Record of Decision is expected to be issued in late fall, 2000.

Netting crews doubled effort over 1999 and, as a result, netted over 11,000 exotic lake trout in Yellowstone Lake this year. As a result of new analysis, the lake trout control program has set a goal of trying to kill 50% of the lake trout population annually. Beginning in 2001, a new lake trout gillnetting tug will allow us to increase effort almost 5 times over the effort expended in 2000, resulting in an increased kill. This is important since most of the netting time has thus far been concentrated in the West Thumb of Yellowstone Lake, which accounts for only 10% of the lake surface area. The park will keep the pressure on the foreign species that threatens the stocks of native cutthroat trout.

Yellowstone fisheries are threatened by two potentially damaging exotic organisms: whirling disease and the New Zealand mud snail. Whirling disease has been implicated in the decline of wild trout in the Madison River in Montana outside the park and has been found in native cutthroat taken from Yellowstone Lake near the mouth of Clear Creek (located on the eastside of the lake). The New Zealand mud snail, which has been found in the Firehole and the Madison rivers, may harm aquatic insect communities.

Tom Olliff was selected for the position of Branch Chief, Natural Resources. Mr. Olliff enter-on-duty date at Yellowstone was August 27, 2000. His distinguished fifteen-year career as a professional resources specialist and program manager will greatly enhance and benefit the park's natural resource management program. Mr. Plumb is responsible for the supervision of the wildlife, aquatic resources, physical science, and vegetation programs in the Yellowstone Center for Resources.

The Northern Range Working Group represents state and federal biologists that coordinate the cross jurisdictional management of the wildlife that utilize ranges in the park, in Montana, and in the Gallatin National Forest. Population trends, research needs and management actions for deer, elk, antelope, and bison were the subject of discussion during the fiscal year.

Staff biologists and dozens of cooperative researchers helped monitor and study park wildlife in FY00. But relatively little research or monitoring was done on many other animals that have important roles in the ecosystem, including reptiles, amphibians, invertebrates, and small mammals. A new Inventory and Monitoring initiative, funded as part of the national NPS Natural Resources Initiative, should focus funding on inventory of rare plants, exotic plants, bats, reptiles, and Snake River finespotted cutthroat trout in FY2001 and beyond.

A small professional staff oversaw vegetation management and cataloged plants into the park herbarium; natural processes such as fire, floods, and native ungulate grazing occur largely unimpeded by humans—with controversial results. Among the plants of special concern that have been listed by the Natural Heritage Programs of the surrounding states are about 100 species known to occur in the park. Two of these species are endemic to the park: Yellowstone sand verbena (*Abronia aammophila)* and Ross' bentgrass (*Agrostis rossiae).*

The goal was measured by analyzing rare animal sighting reports, mammal, bird, and fish monitoring reports, and by soliciting the expert opinion of the fish, wildlife, and bird specialists of the Branch of Natural Resources, Yellowstone Center for Resources and the resource managers of the Division of Resource Management and Visitor Protection.

- **Ia11. Geothermal Features -** One-hundred fifteen of the 226 indicator geothermal features are in good condition.

This goal includes unintentional damage, vandalism, and external threats (thermal drilling, etc.).

Ia11. FY00 Annual Goal: By September 30, 2000, 112 of the 226 indicator geothermal features are in good condition.

Goal: Achieved

Projected Costs (All Sources) - $808,000	Projected FTE - 12.1
Actual Costs (ONPS Base) - $776,080	Actual FTE - 12.03
Actual Costs (other Sources) - $39,978	

According to the *Geysers of Yellowstone* (T. Scott Bryan), there are a total of 226 thermal features in the Upper Geyser Basin, Midway Geyser Basin, Firehole Lake Loop, and the Fountain Group. The Upper Geyser Basin is a broad area around Old Faithful that includes the Old Faithful Group, Geyser Hill Group, Grand Castle Group, Daisy Group, Grotto Riverside Group, Morning Glory Group, Cascade Group, Westside Group, Biscuit Basin, and Black Sand Basin. Midway, Firehole Lake Loop, and the Fountain Group are all downstream along the Firehole River. These geothermal features are indicators of the condition of over 10,000 thermal features in the park.

Park volunteer Ralph Taylor monitored and cleaned over 100 features in the indictor areas during the summer. He focused on those features close to boardwalks because (1) they are the features most likely to be vandalized, and (2) they are the safest features to monitor and clean due to thin thermal crusts away from boardwalks. Mr. Taylor logged 264 hours monitoring and cleaning these thermal features in FY2000. During the course of the summer, he cleaned 535 rocks, 454 coins, and 29 nails out of these pools, all of which were thrown into the pools by park visitors. As a result of Mr. Taylor's efforts, all pools are in good condition.

- **Ia12. Planning -** One hundred percent (100%) of planning and compliance projects are accurately completed on time in order to most efficiently support the preservation of resources.

Ia12. FY00 Annual Goal: By September 30, 2000, a method is implemented to monitor planning and compliance projects.

Goal Achieved

Projected Costs (All Sources) - $1,720,000	Projected FTE - 14.8
Actual Costs (ONPS Base) - $467,053	Actual FTE - 19.07
Actual Costs (Other Sources) - $91,372	
Construction –$1,889,413	

Within the Planning Office an internal database was established to allow projects to be tracked. The database lists the 71 projects that the Planning Office has some responsibility for (lead or team member) and identifies who is the contact person in the office, the status of the project, and the expected intense period of work for the office. This helps the Planning Office ensure that projects needed to be accomplished by other divisions are identified and tracked. Similarly, on the park's Intranet available to employees with computers, is a project listing for completed projects and on-going projects. The ongoing projects identify key upcoming milestones.

Planning efforts in FY00 included continuing the development of new Winter Use Plans for Yellowstone and Grand Teton national parks and the John D. Rockefeller Jr., Memorial Parkway; environmental assessments for various road reconstruction projects; assistance with visitor center replacement or reconstruction, Bechler Area planning, the Heritage and Research Center, a new contractor camp at Canyon, Slough Creek Campground planning, and a new restroom for the Mammoth area. Planning and compliance for the Old Faithful sewage treatment plant were completed in FY99, and the project was under contract in 2000.

The park continued to participate in the steering committee for the Western Transportation Institute's Greater Yellowstone Rural Intelligent Highway Corridor. The project began to implement pilot projects in 2000. An automatic vehicle entry system at Yellowstone's North and Northeast Entrances is slated for installation in 2001.

Cellular communication sites at Old Faithful and Grant were approved in November 1999.

Yellowstone's cooperative agreement with INEEL continued in 2000, with initial approval of a "Transportation and Energy Systems Analysis" for the Greater Yellowstone Area. The systems analysis is an offshoot of the park's work with the Greater Yellowstone-Teton Clean Cities initiative. In addition a safety systems analysis (mentioned elsewhere) was developed during the year.

The park continued to be an active participant in the Greater Yellowstone-Teton Clean Cities initiative. That program is a partnership of federal, state, and local government and business interests who are looking at bringing alternate fuels for vehicles in the Greater Yellowstone Area.

Environmental Assessments for the Canyon to Tower and Hayden Valley road segments were in preparation. Both of these projects are scheduled to have construction contracts awarded in FY 2001

The Planning Office has been an active participant in efforts to rehabilitate the Canyon Visitor Center and to build a new visitor education center at Old Faithful. The Office has closely coordinated with the Division of Interpretation who is preparing environmental assessments on these projects.

A Commercial Services Plan and Environmental Impact Statement was placed on hold during the year because of the press of other, higher-priority projects. A joint effort of the Concessions, Planning and Regional Offices, the Commercial Services Plan will be completed as time allows.
In park decision-making related to development, road design/rehabilitation, trail re-routing and other management actions are conducted in an open forum known as the "Resource Council." In this forum the project manager presents the project or proposal to a multidisciplinary group of park staff. All projects are thoroughly evaluated and are reviewed for ethical, environmental, economic, practical, and social considerations.

- **Ia13. Winter Habitat --** Winter habitat outside the park boundary for use by Yellowstone wildlife is increased from 124,000 acres in FY97 to 132,000 acres.

Yellowstone National Park's boundaries were initially established in 1872 with little regard for wildlife migration routes or winter habitat requirements. In the 1920s, this concern was recognized and addressed by Congress when acquisition of lands for winter wildlife habitat north of the park along the Yellowstone River was authorized. Recent events surrounding bison migration have again highlighted the fact that critical winter wildlife habitat is not sufficient in either Yellowstone National Park or on public lands adjacent to the park. Key parcels of private lands are important winter habitat for bison and other wildlife, and some of those private lands have uses incompatible with protection of wintering wildlife. These tracts are important winter habitat for elk, mule deer, pronghorn, and bighorn sheep. A significant number of partners are actively engaged in pursuing acquisition options for these private lands. Land and Water Conservation Funds may be critical to completion of acquisition options.

Ia13. FY00 Annual Goal: By September 30, 2000, Yellowstone National Park will facilitate an increase in the quantity of protected winter habitat for potential use by Greater Yellowstone Area wildlife.

Goal Achieved
Projected Costs (All Sources) - $60,000
Actual Costs (ONPS Base) - $19,549
Actual Costs (other Sources) - $53,084

Projected FTE - .3
Actual FTE - .35

In FY2000, the National Park Service served as a Joint-lead agency in issuing a Final Environmental Impact Statement entitled " Bison Management for the State of Montana and Yellowstone National Park." This FEIS identified a Preferred Alternative that increases the total acreage on public lands and some private conservation easement lands adjacent to the park that bison would be allowed to exit the park and use during winter. A portion of this increase includes some of the 7,800 acres of lands protected in FY1999 through private land and conservation easement purchase by the U.S. Forest Service. An interagency bison management Record of Decision is expected in FY01 that will direct federal agencies to cooperate with the State of Montana and some private landowners to increase the quantity of winter wildlife habitat adjacent to the park for bison.

This goal is measured by comparing the number of acres outside the park boundary available to wildlife for winter habitat to the number of acres available in FY97.

- **Ia14. Wildland Fire -** Ninety three percent (93%) of all wildland fires in Yellowstone National Park are declared prescribed natural fires and allowed to burn to support natural processes and natural regulation of the ecosystem.

This goal tracks naturally caused fires and their ecological role in influencing the park landscape.

Ia14. FY00 Annual Goal: By September 30, 2000, 91 percent of all fires are declared as prescribed natural fires.

Goal Not Achieved	
Projected Costs (All Sources) - $850,000	Projected FTE - 16.7
Actual Cost (ONPS Base) - $0	Actual FTE - 20.11
Actual Costs (Other Sources) - $$1,526,492	

The 2000 fire season was an historic season in many ways. The fall/winter 1999-2000 was drier than normal with a below normal snowpack and only average spring rains. The summer was very dry which lead to an active fire season in Yellowstone. Yellowstone recorded 34 wildland fires in 2000, 30 were lightning-caused of which three were declared Fire Use actions burning 2.22 acres and 31 were suppression fires, burning 7,207 acres. The reason that more fires were not declared fire use actions is because of the extreme fire danger and shortage of resources in other parts of the country which forced us to take suppression action on all fire after August 1st.

Yellowstone had three large fires that were defacto managed as Fire Use actions, the Unlucky, Moose and Plateau fires, which burned 6,791 of the 7,209 acres, burned this season. The largest suppression fire was the Boundary fire, which started in a 1988 burned area near the south park boundary by Grassy Lake and burned 376 acres. There were several fires that threatened developed areas, mainly the Elephant and Bridge fires in the Lake developed area. These fires were successfully suppressed through quick initial attack actions and retardant support from the base at West Yellowstone. There were over 200 personnel set out on support fire actions outside the park and the park staff is to be commended in pulling together and with all divisions providing support to the wildland fire operation. This did point out the importance of training as many park personnel in wildland fire as possible and for conducting annual refresher training with fitness testing. Without this critical pool of in-park resources, the fire situation inside the park may have gotten out-of-hand and damaged some structures.

Yellowstone is to be commended on Interagency support during the 2000 fire season. The park had 5 personnel serving on Incident Management Teams, 3 on Type 1 teams and 2 on Type 2 teams, with most of the personnel being on fire assignments over 75 days. The park sent over 200 personnel out on over 60 individual fire support actions in all parts of the country. The 2000 fire season burned the most acreage since the 1951 fire season and started very early in Florida and moved west. The most significant fire of 2000 was an escaped prescribed burn from Bandelier NP that burned into Los Alamos, burning over 200 structures and threatening the National Nuclear Lab. This fire caused the prescribed burning program to be shut down across the country as well as for national and regional managers to permit fire use fires to be declared for the rest of the season. The other big fire event was the large fires on the Bitterroot NF in Montana that burned over 600,000 acres and where many of the Yellowstone fire staff assisted the suppression efforts.

This goal was measured by comparing the number of natural fires that are allowed to burn to the number of natural fires that occur in the park.

Mission Goal Ib: *Yellowstone National Park contributes to knowledge about natural and cultural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.*

The following long-term goals relate directly to the knowledge gained about resources and represent Yellowstone's effort to understand the natural and cultural resources within the park.

- Bulleted goals are Long-term Goals to be achieved by September 30, 2005.

- **Ib2a. Archaeological Site Inventory** -- The 1997 baseline inventory and evaluation of Yellowstone's archeological sites is increased by a minimum of 5 percent.

Goals Ib2a, Ib2b, Ib2c, and Ib2d increase the information and knowledge stored on databases gained through inventorying, analyzing, evaluating, and describing cultural resources not previously inventoried and evaluated in the following databases: List of Classified Structures, Automated National Catalog System, Cultural Landscapes Automated Inventory Management System, and Archeological Sites Management Information System.

Ib2a. FY00 Annual Goal: By September 30, 2000, the number of archeological sites inventoried and evaluated is increased by ten.

Goal Exceeded

Projected Costs (All Sources) - $20,000	Projected FTE - .5
Actual Costs (ONPS Base) - $19,673	Actual FTE - 1.5
Actual Costs (other Sources) - $0	

In FY00, 141 archeological sites were added to the Archeological Sites Management Information System (ASMIS) for Yellowstone National Park. This primarily represents results of inventories undertaken for the Federal Highway Administration on the Madison Junction to West Yellowstone and Canyon Village to Fishing Bridge road segments. It cannot be anticipated that similar annual increases to the database will occur.

This goal is measured by looking at the number of sites formally inventoried and evaluated and entered into the Archeological Sites Management Information System (AMIS).

- **Ib2b. Cultural Landscapes** - Increase the number of Yellowstone National Park cultural landscapes listed on CLAIMS from zero (0) in FY97 to two (2).

Ib2b. FY00 Annual Goal: By September 30, 2000, continue inventory on one cultural landscape.

Goal Achieved

Projected Costs (All Sources) - $25,000	Projected FTE - .4
Actual Costs (ONPS Base) - $24,579	Actual FTE - .4
Actual Costs (other Sources) - $0	

This goal is for one cultural landscape to be entered into the NPS cultural landscape Inventory (CLAIMS) by Sept 30 of 2001, and again increase to 2 by 2004. We have one CL in the final stages of completion (and paid for) and the second CL in the planning stage with a funding source identified. Management of the park's cultural landscapes, done jointly by staff from the Yellowstone Center for Resources and the park's Maintenance Division, is hampered by the lack of funding for surveys of the park landscape and smaller component landscapes that contribute to Yellowstone's historic character. Research and evaluation of the landscapes' defining features and their integrity are a prelude to development of a strategy to maintain or restore these cultural resources. Since 1995, an NPS historian (on short details to the park) has been working on a Historic Resource Study of the park's administration, which will help provide information and context with which to evaluate the park's landscapes.

No staff are specially trained in or assigned to this program, and little funding has been available to preserve cultural landscapes even in primary visitor use areas such as the Old Faithful and Fort Yellowstone historic districts.

The goal is measured by the number of landscapes formally inventoried, evaluated, and entered into the Cultural Landscapes Automated Inventory Management Information System (CLAIMS).

- **Ib2c. Historic Structures -** One hundred percent (100%) of historic structures are inventoried and evaluated.

Ib2c. FY00 Annual Goal: By September 30, 2000, 1,106 historic structures are inventoried and evaluated.

Goal Achieved

Projected Costs (All Sources) - $69,000	Projected FTE - .3
Actual Costs (ONPS Base) - $20,875	Actual FTE - .4
Actual Costs (other Sources) - $0	

Yellowstone has 912 historic structures formally entered into the List of Classified Structures (LCS), therefore we have met this goal. However a parkwide historic structures inventory was completed in FY00 and while 100% of the structures have been inventoried, two hundred thirty three (26%) of the structures on the LCS have not been evaluated for listing in the National Register of Historic Places. During FY00, 40 buildings were evaluated and received consensus determinations of eligibility. Thus, by the end of FY00, Yellowstone's unevaluated structures stood at 193 (21%), or a reduction of 5%. The park has transmitted the evaluation information to the IMR office for formal entry into the List of Classified Structures. Due to funding and manpower constraints evaluation of 100% of the structures was never a realistic goal for FY2000.

Evaluations of structures will continue in FY2001. The goal is for 100% of the structures to have updated information in LCS by September 30, 2001.

This goal is measured by the number of historic structures formally inventoried, evaluated, and entered into the List of Classified Structures (LCS).

- **Ib2d. Museum Objects -** The number of objects cataloged in ANCS and submitted to the National Catalog increases from 93,300 in FY97 to 120,000.

Ib2d. FY00 Annual Goal: By September 30, 2000, 1,818 objects are inventoried and evaluated.

Goal Exceeded

Projected Costs (All Sources) - $178,000	Projected FTE - 5.2
Actual Costs (ONPS Base) - $152,616	Actual FTE - 4.9
Actual Costs (Other Sources) - $21,059	

This goal is measured by the number of objects that are cataloged into a park's museum collection using the NPS Automated National Catalog System (ANCS+) and submitted to the National Catalog. During 2000, 5,835 artifacts were cataloged into Yellowstone's museum collection, including photographs, historic objects and archeological artifacts, under the supervision of the park curator. The majority of this work was accomplished with NPS Backlog Cataloging funding. Federal Lands Highway Program funding was used to catalog and store archeological materials generated as a result of road construction projects.

Like most units of the NPS, Yellowstone continues to acquire objects at a pace that outstrips funds available to catalog these objects. New objects are usually received as donations or are generated by archeologists and collectors working under permit. The NPS is mandated to retain and curate collections generated under permit and as a result of systematic archeological collecting. Curators and archivists are responsible for securing artifacts, documents and other materials, through donations or other means that will enhance the educational value of the park's collections to the public.

The cataloging goal for FY01 will be smaller, as the museum collection has few uncataloged items left that qualify for NPS Backlog Cataloging funding. A modest amount of cataloging can be accomplished through other means. However, the archives may receive some Backlog Cataloging funding in FY01.

The goal is measured by the number of objects cataloged in the Automated National Catalog System and submitted to the National Catalog.

Goal Category II: Provide For The Public Enjoyment And Visitor Experience of Parks

The mission goals and long-term goals in Goal Category II are inclusive of the mandate in the Yellowstone enabling legislation "...dedicated and set apart as a public park or pleasuring ground for the benefit and enjoyment of the people..." and the NPS Organic Act "...to provide for the enjoyment of the [resources] in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." Subsequent legislation reinforced and expanded these authorities. All Yellowstone goals for visitor satisfaction, enjoyment, safety, appreciation, and understanding are appropriate to this category.

Mission Goal IIa: *Yellowstone visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.*

- Bulleted goals are Long-term Goals to be achieved by September 30, 2005.

- **IIa1. Visitor Satisfaction** - Ninety-five percent (95%) of Yellowstone National Park visitors are satisfied with appropriate park facilities, services, and recreational opportunities.

This goal improves visitor satisfaction. While many factors affect visitor use and enjoyment, this goal focuses on the facilities, services, and recreational opportunities that Yellowstone National Park provides for the visitor's use, comfort, and enjoyment. Baseline and performance information will be derived from the Servicewide Visitor Services Project annual surveys. The term "satisfied" will be defined as those facilities, services, and recreational opportunities identified by visitors as "good" and "very good."

IIa1. FY00 Annual Goal: By September 30, 2000, 95 percent of Yellowstone National Park visitors are satisfied with appropriate park facilities, services, and recreational opportunities.

Goal Not Achieved

Projected Costs (All Sources) - $14,815,000	Projected FTE - 175.9
Actual Costs (ONPS Base) - $9,369,363	Actual FTE - 191.54
Actual Costs (Other Sources) - $3,365,718	
Construction – $2,308,821	

The Visitor Services Project Survey was conducted in Yellowstone during the month of July 2000. There were 768,040 recreational visitors in the park during July and 154,472 non-recreational visitors (a decrease of 7.8% in recreational visitors between 1999 and 2000). Four hundred visitor survey cards were passed out during July to recreational visitors. The park received 83 responses (21% - up from 16% in 1999) with an overall satisfaction rating of 93%. In the past two years, the overall satisfaction rating has been 97% and 95%, respectively. From 1999 to 2000, the individual satisfaction measures for park facilities, visitor services, and recreational opportunities went up. However the overall score went down because more people rated the park average than in the previous two years combined (6% in 2000 versus 3% in 1998 and 1999), and fewer people (40% versus 44%) rated the park good. Those that thought the park was very good increased slightly in 2000 (to 53%), which was not enough to offset the change in the other ratings.

The overall satisfaction rating for restrooms is 68%, 64% for walkways, trails, and roads, and 83% for campgrounds and/or picnic areas (as compared to 63%, 54%, and 72%, respectively in 1999). The combined park facilities overall satisfaction rating is 79%. Unfortunately, only the overall satisfaction rating (93%) is reported up through the system and, therefore, does not reflect the park's deteriorating infrastructure and the fact that our visitors recognize the problem. The clearest sign of this recognition is the written comments that visitors provide at the bottom of the visitor survey card form. In 2000, 59% (49 out of 83) wrote a complaint or a suggestion on the form, as compared to 42% in 1999. 13 comments were on bad roads, but poor signs and information elicited 7 comments, 6 called for more restrooms, and 4 said the fees were too high (to help put these complaints in perspective, 19 respondents wrote a positive note about the service they received or the facilities they used). In the past two years, roads have been the number one complaint, but other concerns and suggestions have been limited to typically one or two per topic. This year, more people voiced concerns and they went beyond road conditions. A copy of the report is included in the Appendix.

Until funding to the park is increased to make needed improvements, it will be difficult to meet this goal

Of the 83 responses, 41 (or 49%) matched the park significance statements (as compared to 69% in 1999 and 59% in 1998).

This goal is measured using the results of the yearly visitor survey.

- **IIa2. Visitor Safety** - The Yellowstone National Park visitor accident/incident rate is reduced from the FY92-FY96 five-year annual average of 10.06 to 9.05 per 100,000 visitor days (a 10 percent reduction).

This goal improves the safety and security of park visitors.

IIa2. FY00 Annual Goal: By September 30, 2000, the visitor safety incident rate is reduced by 2 percent.

Goal Achieved

Projected Costs (All Sources) - $11,078,000	Projected FTE - 527
Actual Costs (ONPS Base) - $7,140,455	Actual FTE – 152.29
Actual Costs (other Sources) -$1,774,234	
Construction – $2,286,272	

The protection of human life in Yellowstone takes precedence over all other management actions. Park staff share responsibility for protecting visitors from harm while they are in the park. Visitor safety and protection is achieved through enforcement of applicable laws and park regulations; reduction of hazards and maintenance of trails, campgrounds, and other facilities used by visitors; visitor education about how they can help protect the park and themselves; and providing search, rescue, and emergency medical assistance when needed.

During the summer, Yellowstone has a maximum nighttime population of 25,000 and an average daytime population of 40,000. Although we were able to achieve this goal during FY2000, our present rescue and suppression capabilities fall short of providing adequate protection for this number of visitors and employees.

Without increases in budget and professional staff, the park cannot provide a reasonable level of life safety for those in occupied buildings, nor can we adequately protect our structures. Protection of park buildings, many of them multi-story wooden structures, requires separate fire-fighting equipment and crews in each of the park's five and three smaller developed areas. There are two fire trucks at each of the four major park locations (Lake, Old Faithful, Grant, and Mammoth) and one at Canyon. Although many of the historic buildings have been rehabilitated to meet modern fire codes, deficiencies need to continue to be identified and are included in a rehabilitation program. Developed areas that are separated by long distances and the complexities of a seasonal operation confine to greatly diminish our ability to adequately respond to structural fire, creating a serious risk to building occupants and the potential to lose irreplaceable historic buildings.

Traffic patterns, combined with natural distractions and deteriorating road conditions, make for hazardous traveling for the unwary driver. We anticipate that continued gas tax revenues will provide badly needed monies to rebuild roads. Protecting Yellowstone visitors and staff on park roads is one our greatest challenges, based on these and other circumstances.

Park radio systems are being upgraded; cell phones provide new access to ranger stations previously isolated from park headquarters and other stations. Special alarm systems now protecting museums, fee-collection stations, and utility systems have special safety requirements.

Staff opportunistically manage and interpret human/wildlife interactions, addressing site-specific human safety and property damage concerns as well as wildlife displacement or behavioral changes. Interpreters and resource specialists provide programs and printed information on wildlife and their behavior. Management of bear/human conflicts, including human foods and other attractants and associated bear transplants and removals, has declined significantly, resulting in less risk to humans and bears. Millions of people enjoy seeing wild bison and learning about their important role in the Yellowstone ecosystem, but their strength and speed surprise some incautious visitors who are injured when they approach too closely.

Staff drafted a Hazard Tree Management Interim Operating Plan. A parkwide hazard tree survey and identification training class was given by US Forest Service staff. Hazard tree surveys were conducted in every campground and developed area throughout the park. District staff conducted surveys and removed hazard trees or marked trees for removal in concession land assignment areas.

At Madison Campground, over 7,200 trees were surveyed with 52 marked for subsequent removal by Amfac Parks and Resorts. Following tree removal at Madison Campground, trees were hand-planted by RMO&VP staff and volunteers. Park staff also assessed and removed 35 trees from Norris Campground, 93 trees from Indian Creek Campground, 72 trees from the Lewis Lake Campground, 80 trees from the Grant Village Campground and 25 trees from the Lake Bridge bay development area. In addition, 72 trees were assessed as hazards and removed along the road between Mammoth and Norris, 65 trees between Norris and Campground, and 24 trees between Tower and Petrified Tree road.

This goal was measured by counting serious injury and illness reports.

Mission Goal IIb: *Yellowstone visitors, the American public, and the people of the world understand and appreciate the preservation of Yellowstone National Park resources and associated values for this and future generations.*

- Bulleted goals are Long-term Goals to be achieved by September 30, 2005.

- **IIb1. Visitor Understanding and Appreciation** - Sixty percent (60%) of park visitors understand and appreciate the significance of Yellowstone National Park.

This goal measures visitors' comprehension and appreciation of park resources and their significance.

IIb1. FY00 Annual Goal: By September 30, 2000, 60 percent of park visitors understand and appreciate the significance of Yellowstone National Park.

Goal Not Achieved

Projected Costs (All Sources) - $2,760,000	Projected FTE – 16.8
Actual Costs (ONPS Base) - $792,573	Actual FTE – 17.95
Actual Costs (other Sources) - $1,761,387	

This goal was not reached due to budget and staffing constraints. Budget limitations only allow interpretive staff to reach approximately 6% of park visitors with interpretive programs that help visitors develop an understanding and appreciation for Yellowstone National Park. However, surveys show that approximately 76% of visitors believe interpretive programs are important. This year we had to further curtail ranger-led walks and talks for our visitors during the month of September because of staffing shortfalls. Most visitor centers have severely outdated exhibits, or no exhibits at all. Most park visitor centers close at 7:00pm daily. Several thousand visitors are not served between the hours of 7:00pm and 9:00pm because of these limited hours. While plans are underway to improve some visitor center exhibits, continued funding shortfalls limit our ability to implement changes in a timely manner.

Each year, only 40% of the 2000 area teachers and children who have applied to participate in curriculum-based education programs about Yellowstone National Park's significance are served. Staffing and facility limitations result in our turning away approximately 1200 school children from communities surrounding the park who request this service. The program is not advertised, yet so many apply that those who participate are chosen by a lottery system.

Baseline and performance information to measure visitor understanding is derived from the Visitor Services Project (VSP).

Goal Category IV: Ensure Organizational Effectiveness

The mission goals and long-term goals in Goal Category IV support the mission of the National Park Service and Yellowstone National Park. This category generally relates to efficient and effective governmental processes rather than to the results of those processes. These goals measure workplace standards, such as diversity and competency levels, as well as program execution efficiencies, such as the administration of the Volunteers in Parks Program.

Projected and actual dollars and FTEs are not shown for category IV goals, but are amortized across the category I, II and III goals.

Mission Goal IVa: *Yellowstone uses appropriate and effective management practices, systems, and technologies to accomplish its mission.*

Improvements in the areas of workforce diversity, employee safety, employee housing, and employee performance standards will help Yellowstone National Park accomplish its mission. Long-term goals pertaining to organizational responsiveness, efficiency, and accountability are related to this mission goal.

- Bulleted goals are Long-term Goals to be achieved by September 30, 2005.

- **IVa01. Computer Systems -** The number of Yellowstone computers that can access the Internet and Intra-park computer network increases from 50 in FY97 to 450.

IVa01. FY00 Annual Goal: By September 30, 2000, 400 computers can access the intra-park computer network.

Goal Exceeded

Yellowstone's Computer Support Services has connected all 450 computers via our LAN, WAN or dial in access. All personnel in the park have access to the intranet/internet and ccmail.

As a subset of the Internet, a park intranet is in place and provides designated user groups with immediate access to the park's enormous information resources and makes it easier for employees to share data ranging from meeting schedules to research results.

Rewiring of several older buildings in Mammoth began in late 1997, permitting a switch to Ethernet and improved information transfer. A plan to phase in parkwide connectivity was expected to take a couple of years.

This goal number was changed from IVa9 in the FY98 Annual Performance Plan and was measured by reporting the number of computers that have access to the inter/intra-park Internet.

- **IVa2. Employee Competencies -** One hundred percent (100%) of Yellowstone employees within the 16 key occupational groups have essential competency needs identified for their positions.

This goal assures that permanent and term employees have their appropriate career field training and development needs identified through formal needs assessments.

IVa2. FY00 Annual Goal: By September 30, 2000, 250 Yellowstone employees within the 16 key occupational groups have essential competency needs identified for their positions.

Goal Achieved

The career fields in the 16 key groups, ranging from Administration and Office Management Support to Maintenance to Visitor Use Management, have essential competencies identified for each. An essential competency is a knowledge, skill, or ability vital for an employee to perform effectively at his or her level in a career field. Manuals describing the competencies are available in the park.

The park provided extra training resources in order to increase the quality and effectiveness of supervision. In FY2000 training resulted in 39 employees attending one of two "Seven Habits for Highly Effective People" training classes, and 57 employees attending one of two

"Supervisory Excellence" sessions. Additionally 26 employees attended one of two "Retirement Workshops", and 34 employees attended Job Safety Analysis training.

This goal is measured by determining the number of career fields for which essential competencies have been identified

- **IVa3. Employee Performance** - One hundred percent (100%) of Yellowstone employees have performance plans that are linked to appropriate strategic and annual performance goals.

This goal assures permanent and term employees' performance agreements and performance standards are linked to park strategic and annual performance goals.

IVa3. FY00 Annual Goal: By September 30, 2000, 333 Yellowstone employees have performance plans that are linked to appropriate strategic and annual performance goals.

Goal Achieved

Each NPS employee has a required Employee Performance Plan and Results Report (Form DI-2002). Past performance plans have been task statements emphasizing individual outputs rather than individual contributions to the overall NPS mission or organizational outcomes. This goal directly ties individual performance goals to organizational outcomes. All employee performance plans are now tied to strategic and annual performance goals

This goal was be measured annually by supervisors/managers certifying that Employee Performance Plan and Results Reports are related to organizational goals set forth in the park's Strategic Plan.

- **IVa4. Workforce Diversity**
- - Increase by 8 percent over 1998 levels the representation of underrepresented groups in each of the targeted occupational series in the Yellowstone National Park permanent workforce.

Yellowstone National Park is committed to increasing diversity in its workforce and will recruit and hire qualified minorities, women, and individuals with disabilities in all occupational series, but particularly in targeted occupations and grade levels where they are underrepresented.

IVa4. FY00 Annual Goal: By September 30, 2000, the diversity of annual permanent new hires in each of the targeted occupational series has increased by 8 percent over 1998 levels.

Goal Achieved

As of September 30, 2000, park staff identified 95 employees in the targeted occupational series in the Yellowstone permanent workforce. Of those targeted occupational series, 32 are female, five are minorities and one is disabled.

In the total permanent work force, park staff identified 384 employees in permanent status. Of the total permanent work force 130 are female, twelve are minorities and nine are disabled for a total percentage of 39% of our workforce who are females, minorities and disabled.

We have increased the number of minorities in seasonal positions from 1998 to 2000 by 50%. Women have increased in seasonal positions by 15% from 1998 to 2000.

Three recruiters from Yellowstone partnered with one recruiter from Rocky Mountain NP to attend and staff a booth at Tuskegee University's job fair in late September and early October 1999. (Tuskegee University is a Historically Black College or University (HBCU) in Alabama.) From that job fair, 3 Tuskegee students were hired in Yellowstone (two of the three were hired under the STEP authority) for the 2000 summer; two worked at entrance stations (East and South) and one worked in the backcountry office at Old Faithful.

Two recruiters from Yellowstone attended the National Hispanic and Environmental Council Conference and job fair in Westminster, Colorado, in late April and early May 2000. One Hispanic was hired, using the STEP authority for the 2000 summer, and she worked in the Visitor Services Office in Mammoth.

One Yellowstone employee attended Diversity Recruitment training at the Grand Canyon in October 1999 and another Yellowstone employee attended a second Minority Recruitment training at the Grand Canyon in February 2000.

Yellowstone sponsored an American Indian Use of Yellowstone 4-day training in April 2000 and letters were sent to Yellowstone's affiliated tribes announcing open vacancies and soliciting applications.

The goal was measured by comparing the total number of employees in the targeted occupational series with the number of employees who are members of underrepresented groups in the targeted occupational series.

- **IVa5. Employee Housing -** Twenty percent (20%) of employee housing units classified as being in poor or fair condition in 1997 have been removed, replaced, or upgraded to good condition.

This goal improves the condition of employee housing within Yellowstone National Park and is contingent upon receiving construction funding and repair/rehab funding. Housing is provided to better protect park resources and visitors.

IVa5. FY00 Annual Goal: By September 30, 2000, 16 housing units classified as being in poor or fair condition in 1997 have been removed, replaced, or upgraded to good condition.

Goal Achieved

The 1996 Housing Management Report, compiled in early FY97, listed the following units which were in fair, or worse, condition that have since been replaced or upgraded:

Trailer 34 - Replaced when the Old Faithful Six-Plex was occupied in early FY97.
Trailer 46 - Replaced when the Old Faithful Six-Plex was occupied in early FY97.
Trailer 47 - Replaced when the Old Faithful Six-Plex was occupied in early FY97.
Trailer 151 - Replaced when the Old Faithful Six-Plex was occupied in early FY97.
Trailer 22 - Replaced when the West Entrance Quad was occupied in FY98.
Trailer 23 - Replaced when the West Entrance Quad was occupied in FY98.

Trailer FWF2 - Replaced when the West Entrance Quad was occupied in FY98.
Trailer 163 - Replaced when the West Entrance Quad was occupied in FY98.
Trailer 14 - Replaced when the Lake Quad was occupied in FY99.
Trailer FWF4 - Replaced when the Lake Quad was occupied in FY99.
Trailer FWF5 - Replaced when the Lake Quad was occupied in FY99.
Trailer 97 - Replaced when the Tower Quad was occupied in FY99.
Trailer 168 - Replaced when the Tower Quad was occupied in FY99.
Trailer 3 - Replaced when the Tower Quad was occupied in FY99.
Housing Unit 231A - Upgraded to good/excellent condition in FY00
Housing Unit 231B - Upgraded to good/excellent condition in FY00

There are an additional 4 trailers that will be replaced in early FY01 when the Canyon Quad and Northeast Entrance Quad are occupied. These two housing units were scheduled to be constructed in FY98 but, as a result of a congressionally mandated review of servicewide housing policies, construction of new employee quarters was on hold until late in FY00. These two units were only constructed as a test case and all of the FY99 housing funds were held up until late in FY00, putting the program about two years behind. Funds from FY98 and FY99 for rehabilitating units were also released in late FY00.

There are still a large number of units, especially trailers and transahomes, that are in worse than fair condition.

This goal will be measured by counting the number of employee housing units classified in poor or fair condition that have been replaced or upgraded.

- **IVa6a. Lost-time Injury Rate** -- The lost-time injury rate in Yellowstone will be reduced by 50 percent.

This goal reduces the employee lost-time injury rate (the rate of injuries resulting in employee lost time due to on-the-job injuries/illnesses).

IVa6a. FY00 Annual Goal: By September 30, 2000, reduce the lost-time injury rate by 2 percent (per 200,000 labor hours).

Goal Exceeded

Some of the processes and programs that the park is developing and implementing to drive continuous safety improvement for both employees and visitors include: an OSHA partnership which has produced ongoing consulting services from OSHA, training in ergonomics, fall protection, ladders, scaffold, OSHA 600, safety excellence, and a close working relationship with OSHA. This association has proved to be an invaluable resource for safety improvement at Yellowstone. The park has established eight Safety Advisors from the employees' ranks who will serve in their local area to assist and guide supervisors and managers in achieving their safety and health responsibilities. OSHA Program Teams are being formed to manage individual OSHA programs. These teams are responsible for writing the park program, training, inspections, and program evaluation and improvement. The Risk Management Committee has been reorganized into a Safety Advisory Committee to advise and assist senior management with integrating safety parkwide.

Yellowstone has engaged two partners to help solve safety issues. The INEEL Systems Sciences and YNP's Safety group will develop a new internal self-assessment methodology to support the implementation and integration of the integrated Safety Management (ISM) system and processes. This work will be based on the industry concept of a "Capability Maturity Model" and its associated self-assessment methodology. The results of this collaboration will be the definition of levels of maturity for an ISM-based organizational culture as well as all the assessment tools needed to determine the trend levels of improvement. Our other partner, NIOSH, has a two million-dollar grant to study air quality at entrance stations and the garage. They are also studying snowmobile ergonomics and how to prevent employee injuries from snowmobiling activities while on the job.

The Superintendent's vision for Yellowstone National Park is for the park and its personnel to be recognized as the model for safety excellence throughout the National Park Service. To do that we will demonstrate strong safety leadership and management performance. The vision is nothing less than an incident- and injury-free environment in our workplace, our homes, and this park.

During FY 2000 maintenance staff performed cathodic protection testing on fuel dispensing and general tanks, and performed leak detection testing on all tanks. The division conducted or participated in the following safety training: Howitzer training class, groomer operator training, OSHA training and safety excellence. They performed safety inspections and preventative maintenance on employee buses; developed specifications for Material Data Safety Sheets, and the continuation of using environmentally friendly "green" products parkwide.

A Medical Surveillance database was developed for the Division. The program identifies training requirements, due dates for physicals and other pertinent information.

Job Safety Analysis documentation efforts continue, with a division wide repository established.

The OSHA partnership continued in FY2000, with emphasis placed on fall protection procedures.

A chemical safety analysis was performed in the park by the EPA in FY2000, identifying proper storage and disposal of hazardous chemicals.
During FY2000 a series of OSHA approved courses were conducted in the Park. The courses certified 40 employees to become the "component person" in identifying, handling, and removing hazardous materials on the job site. In addition, 12 employees were trained to become inspectors for lead and asbestos mitigation, and another 20 employees were trained in proper respiratory protection procedures.

The park provided training that resulted in the certification of 62 employees in the field of forklift operations.

Concessionaires' reportable injury rates were:

Amfac Parks and Resorts	1999 - 359	2000 - 335
Hamilton Stores	1999 - 27	2000 - 27
YPSS	1999 – 3	20003 - 4

This represents a decrease of over 6% on reportable injuries.

This goal has two performance indicators with each having its own goal identification code (IVa6a and IVa6b). The goals are measured for the lost time injury rates (which measures the rate of injuries resulting in employee lost time due to on-the-job injuries/illnesses), and Continuation of Pay costs (which measures the costs incurred through Continuation of Pay for injuries suffered on-the-job).

- **IVa6b. Workers' Compensation Costs** -- New worker's compensation hours are reduced by 50 percent (per 200,000 labor hours) based on the 1999 hours.

IVa6b. FY00 Annual Goal: By September 30, 2000, workers compensation hours are reduced by 20 percent.

Goal Not Achieved

Yellowstone paid $18,536 in workers compensation claims in FY2000, falling short of our goal of $16,323. However, this represents a 30% decrease from the amount paid in Fy1999.

The current increases in compensation costs are the result of more serious injuries involving neck and lower back injuries. These injuries are more expensive to treat and require longer periods of treatment and recovery. We feel the projected goals for compensation costs are appropriate since we are focusing on system improvement over time, not reacting to statistical variance short term.

Yellowstone's management, with the involvement of all employees, is in the process of creating an integrated safety management system. This system will change the safety culture of Yellowstone where safety is not just a priority but is of great value. This in turn will focus our safety mission on creating a system that produces safe performance and continuous improvement to zero injuries and occupational illnesses. This cultural change process will take from 3 to 7 years to fully implement.

Because systems are not developed nor fully implemented to control employee behaviors, increase the safeness level of work environments, and produce continuous safety improvements, the accident rate and lost work days will continue to fluctuate during this cultural change period. Since we are focusing on upstream performance and system improvements, and not downstream accident avoidance we may not see a decrease in the rates of accidents nor OWCP lost time for some time.

We are laboring to fix the system that will eventually control and eliminate losses, not react or be driven by accident or OWCP rates.

Mission Goal IVb: *Yellowstone increases its managerial capabilities through initiatives and support from other agencies, organizations, and individuals.*

- Bulleted goals are Long-term Goals to be achieved by September 30, 2005.

- **IVb1. Volunteer Hours** -- Increase the number of volunteer hours by 25 percent (25%) over the 1997 level.

This goal increases the total number of hours contributed to the servicewide volunteer program.

IVb1. FY00 Annual Goal: By September 30, 2000, increase the number of volunteer hours by 8,974 hours over the 1997 level.

Goal Exceeded

Yellowstone met its GPRA goal this year which was to increase the number of hours worked in FY2000 (71,879) by 25 percent over 1997 (43,283). FY2000 VIP hours increased to 71,879.

Yellowstone's VIP Program continues to diminish with regard to the number of volunteers utilized each year, even though the number of hours increased in FY2000. For the past three years, fewer than 400 individuals volunteered their services. More than 1,000 applicants were turned away, primarily because of lack of housing and staff to direct projects. Campground hosts that have their own travel trailer, dependents of employees, and individuals in surrounding communities receive priority placement because they do not require housing. The bulk of volunteer applicants are for summer months when government housing is needed for summer seasonal employees.

The goal is measured by using data from the VIP Report on the number of volunteer hours.

- **IVb2A. Cash Donations and Cash Grants** -- Increase by five-percent (5%) over 1997 levels the dollar amount of donations and grants to Yellowstone National Park.

This goal increases the amount of cash donations and grants given to Yellowstone National Park.

IVb2A. FY00 Annual Goal: By September 30, 2000, donations and grants to Yellowstone are increased by $5,249 over 1997 donations.

Goal Not Achieved

Yellowstone is grateful for the tangible support received from many individuals, from the small out-of-pocket contribution added to a donation box to the six-figure check offered by a generous benefactor. The amount of cash donations will decrease due to the use of the Yellowstone Foundation and the use of reimbursable accounts instead of donations. Therefore, this goal has been revised for FY2001 to reflect more realistic targets

This goal only measures and reports on actual cash donations, which are tracked and reported through the finance system.

- **IVb2B. Donations In-kind - Friends Groups** -- Increase by seventy five percent (75%) over 1997 levels the value of in-kind donations from Friends Groups and other Non-profit Support Organizations.

This goal increases the amount of in-kind donations from Friends Groups and other Non-profit Support Organizations.

IV2B. FY00 Annual Goal: By September 30, 2000, increase by $324,442 over 1997 levels the value of in-kind donations from Friends Groups and other Non-profit Support Organizations.

Goal Exceeded

The primary partner contributing to this goal is the flourishing relationship with the Yellowstone Park Foundation. The Foundation is a non-profit organization dedicated exclusively to raising money for projects and programs that protect, preserve, and enhance Yellowstone National Park. Their goal is to alleviate the environmental and financial pressures that Yellowstone faces by raising money for projects that are beyond the financial capacity of the National Park Service. Aid to the park from the foundation totaled $624,383 in FY2000. Yellowstone National Park is grateful for the support of the Yellowstone Foundation.

This goal is measured by tracking the value of in-kind donations from non-profit organizations (other than cooperating associations).

- **IVb2C. Cooperating Association Donated Value** -- Increase by 10 percent (10%) over 1997 levels the value of in-kind donations received from The Yellowstone Association.

This goal increases the value of in-kind donations received from the park's cooperating association.

IVb2C. FY00 Annual Goal: By September 30, 2000, the value of in-kind donations received from The Yellowstone Association is increased by $29,439.

Goal Exceeded

Baseline (1997): $490,848
Total FY00 In-Kind Donation: $663,518
Projected FY00 Increase: $29,439
Actual FY00 Increase: $172,870

The Yellowstone Association is the park's primary partner in providing education to park visitors. The Yellowstone Association provides financial support for educational and scientific programs and projects in Yellowstone National Park.

This goal is measured by tracking the value of in-kind donations from the park's cooperating association. Yellowstone National Park completed a number of pending projects, which means that more aid from The Yellowstone Association was recognized in this category during FY00.

- **IVb2D. Donations In-kind - Other Sources** -- Increase by five percent (5%) over 1997 levels the value of in-kind donations from all other sources.

This goal increases the value of in-kind donations received from corporations and other for-profit organizations.

IVb2D. FY00 Annual Goal: By September 30, 2000, the value of in-kind donations received from all other sources is increased by $200.

Goal Achieved

Yellowstone is grateful to the many park volunteers and contributors that made achievement of this goal possible. The park has many partners (corporations or other for-profit organizations) that contribute in-kind donations directly to the park or expend funds on the park's behalf. Some examples include boardwalk materials from Lever Brothers and sewer pipe from Pacific States Cast Iron. Other corporations or for-profit organizations contribute to the Yellowstone Foundation, which in turn passes the in-kind donation to the park.

This goal is measured by tracking the value of in-kind donations contributed directly to the park from corporations or other for-profit organizations.

- **IVb4. Fee Receipts** -- Increase by 15 percent (15%) over the 1997 level the amount of receipts from park entrance, recreation, and other fees.

This goal increases the amount of receipts from all fee sources.

IVb4. FY00 Annual Goal: By September 30, 2000, increase the amount of receipts from park entrance, recreation, and other fees to $7,585,584.

Goal Not Achieved

This goal was not achieved primarily due to lower than expected visitation in late summer. Park management believes that visitation was adversely impacted by high gasoline prices and national media coverage of large wildfires in Montana. While the park was never closed, smoky conditions did exist in the park and visitation dropped during the fire season.

This goal is measured by counting all fee receipts as reported through the Accounting Operations Division under primary work element codes (PWEs) 704-717. The park also reports for funds transferred from PWEs 704-717 to PWEs 693 and 610 for local schools.

ANNUAL PERFORMANCE REPORT PREPARERS

The following park staff members were extensively involved in preparing this Annual Performance Plan.

Blaine Flint	Chief, Financial Services	GPRA Coordinator
Mike Finley	Superintendent	
Lindsay Robb	Budget Analyst	
Melissa McAdam	Budget Analyst	
Tom Olliff	Resource Management Coordinator	
Phil Perkins	Fire Management Officer	
Joanne Timmins	Chief, Personnel	
Maribeth Wuertz	Personnel Specialist	
Susan Kraft	Curator	
Eleanor Clark	Supervisory Landscape Architect	
Elaine Hale	Cultural Resources	
Lon Johnson	Cultural Resources	
Ann Johnson	Cultural Resources	
John Varley	Director, Yellowstone Center for Resources	
Glenn Plumb	Wildlife Biologist	
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Rick Obernesser	Chief, Visitor Protection and Resource Management	
Tim Hudson	Chief, Maintenance	
Edna Good	Chief, Concessions	
Diane Chalfant	Chief, Interpretation	
Judy Folts	Assistant Chief, Interpretation	
Marsha Karle	Chief, Public Affairs	
Cheryl Matthews	Public Affairs	
Michael Kirby	Chief, Computer Support Services	
John Sacklin	Chief, Planning and Compliance	
Edith Peterson	Safety Services	
Jean Nuetzel	Administrative Program Manager	
Carol Staton	Administrative Assistant	
Grace Short	Administrative Assistant	
Ron Thoman	Intermountain Region GPRA Coordinator	

APPENDIX

BUDGET SPREADSHEET

2000 VISITOR SURVEY CARD SURVEY REPORT

DIVISIONS' HIGHLIGHTS

(Indirect Costs distributed by weighted

Mission Goal	Goal #	Description	Construction Goal amounts w/o indirect costs	Construction Indirect Costs	GPRA Fund Categories									
					Construction Total	Donations	Fee Program	ONPS Other	Other Sources	Non Base Fund Subtotal	ONPS Base direct costs	ONPS Base Indirect and Category IV costs	ONPS Base Totals	Grand Tot
a														
	Ia1a	25% of disturbed park lands as of 1997, are restored		$0 00	$0 00	$37,200 00				$37,200 00	$102,245 94	$27,882 52	$130,128 46	$167,32
	Ia1b	80% of the priority acres of exotic species targeted as of 1997 have been contained (each year)		$0 00	$0 00	$138,886 00	$110,737 00	$19,765 00		$269,388 00	$201,166 74	$54,858 28	$256,025 02	$525,41
	Ia2a	The wolf population, reintroduced to Yellowstone in 1995 and listed as a threatened species will have (10 breeding pairs) improved status over the 1997 level			$0 00	$17,500 00				$17,500 00	$240,566 08	$65,602 50	$306,168 57	$323,66
	Ia2b	88% of the populations of grizzly bears bald eagles and peregrine falcons all listed as federally threatened or endangered species with critical habitat in Yellowstone remain stable compared to 1997 population levels		$0 00	$0 00					$0 00	$396,557 32	$108,141 39	$504,698 71	$504,69
	Ia3	Air quality has not degraded from the 1997 levels		$0 00	$0 00			$11,948 00		$11,948 00	$25,418 39	$6,931 61	$32,350 00	$44,29
	Ia04	Water quality has not degraded from the 1997 levels		$0 00	$0 00					$0 00	$28,790 25	$7,851 12	$36,641 37	$36,64
	Ia05	100% of the historic structures in Yellowstone are on the List of Classified Structures			$0 00					$0 00	$59 499 08	$16,225 43	$75,724 50	$75,72
	Ia6	55% of preservation and protection conditions in the Yellowstone museum collections meet professional standards			$0 00		$114,915 00	$35 161 00		$150,076 00	$15,457 59	$4,215 29	$19,672 89	$169,74
	Ia8	40% of the recorded archeological sites in Yellowstone are in good condition			$0 00					$0 00	$24,792 50	$6,760 93	$31,553 43	$31,55
	Ia9	95% of the known self sustaining and free ranging wildlife native fish and vegetation communities are preserved and maintained	$2,497,274 00	$24,630 92	$2,521,904 92	$18,100 00	$180,550 00	$231 578 00		$2,952 132 92	$3,404,743 42	$928,475 36	$4,333,218 78	$7,285,35
	Ia11	A program is in place to monitor and protect fragile geothermal features		$0 00	$0 00		$34,485 00	$5,493 00		$39,978 00	$609,790 32	$166,290 15	$776,080 47	$816,05
	Ia12	100% of planning and compliance projects are accurately completed in time to most efficiently support the preservation of resources	$1,889,413 00	$18,635 51	$1,908,048 51		$91,732 00			$1,999,780 51	$366,977 64	$100,075 00	$467,052 64	$2,466,83
	Ia13	Adequate winter habitat outside the park boundary for use by Yellowstone wildlife is increased			$0 00		$53,084 00			$53,084 00	$15,360 25	$4,188 75	$19,549 00	$72,63
	Ia14	Natural fires are allowed where possible to burn in Yellowstone to support natural processes and natural regulation of the ecosystem			$0 00				$1,526,492 00	$1,526,492 00	0			$1,526,49
		Mission Goal Subtotals =>	$4,386,687.00		$4,429,953 43	$211,686 00	$585,503 00	$303,945 00	$1,526,492.00	$7,057,579.43	$0 00		$6,988,863.84	$14,046,44
b											0			
	Ib2a	The 1997 baseline inventory and evaluation of each of Yellowstone s categories of cultural resources (archeology sites) is increased by a minimum of 5%		$0 00	$0 00					$0 00	$15,457 59	$4,215 29	$19,672 89	$19,67
	Ib2b	5% increase in cultural landscapes inventoried and evaluated			$0 00					$0 00	$19,313 23	$5,266 73	$24,579 96	$24,57
	Ib2c	100% of historic structures are inventoried and evaluated			$0 00					$0 00	$16,401 79	$4,472 78	$20,874 57	$20,87
	Ib2d	75% of museum, archival and library collections are inventoried and evaluated		$0 00	$0 00			$21,059 00		$21,059 00	$119,129 56	$32,486 69	$151,616 25	$172,67
		Mission Goal Subtotals =>	$0.00		$0 00	$0.00	$0 00	$21,059 00	$0.00	$21,059 00	$0 00		$216,743 66	$237,80
Ia											$0 00			
	IIa1	80% of park visitors are satisfied with appropriate park facilities services and recreational opportunities	$2,286,272 00	$22,549 78	$2,308,821 78	$14,500 00	$891,977 00	$2,304,511 00	$154,729 00	$5,674,538 78	$7,361,797 65	$2,007,566 17	$9,369,363 82	$15,043,90
	IIa2	The visitor safety incident rate is reduced by 10% from the Yellowstone two-year (1996/97) average	$2,286,272 00	$22,549 78	$2,308,821 78	$3,100 00	$891,976 00	$879,157 00		$4,083,054 78	$5,610,475 69	$1,529,979 74	$7,140,455 43	$11,223,51
		Mission Goal Subtotals =>	$4,572,544 00		$4,617,643 57	$17,600 00	$1,783,953 00	$3,183,668 00	$154,729.00	$9,757,593 57	$0 00		$16,509,819.25	$26,267,41
Ib											$0 00			
	IIb1	80% of park visitors understand and appreciate the significance of Yellowstone National Park			$0 00	$5,000 00	$1,653,387 00	$103,000 00		$1,761,387 00	$622,749 20	$169,824 04	$792,573 24	$2,553,96
		Mission Goal Subtotals =>	0		$0 00	$5,000.00	$1,653,387.00	$103,000 00	$0.00	$1,761,387.00	$0 00		$792,573 24	$2,450,96

FY-2000 GPRA Report
(Indirect Costs distributed by weighted % to each goal)

Mission Goal	Goal #	Description	Construction Goal amounts w/o Indirect costs	Construction Indirect Costs	GPRA Fund Categories Construction Total	Donations	Fee Program	ONPS Other	Other Sources	Non Base Fund Subtotal	ONPS Base direct costs	ONPS Base Indirect and Category IV costs	ONPS Base Totals	Grand Total
IVa											$0 00			
	IVa01	90% of Yellowstone computers can access the intra-park computer network								$0 00	$137,474 26			$0 00
	IVa5	35% of employee housing units (excluding trailers and temporary units), classified as being in poor or obsolete condition in 1997 have been removed, replaced or upgraded to good condition	$88,366 00						$1,403,680 00	$1,403,680 00	0			$1,403,680 00
	IVa6a	Reduce by 50% the Yellowstone lost time injury rate								$0 00	$292,339 28			$0 00
		Mission Goal Subtotals =>	$88,366.00		$0 00	$0 00	$0 00	$0 00	$1,403,680 00	$1,403,680 00	$429,813 53		$0 00	$1,403,680.00
IVb											$0 00			
	IVb1	Increase by 5% over the 1997 level the number of volunteer hours						$10,500 00		$10,500 00	0			$10,500 00
	IVb2	Increase by 10% over 1997 levels the dollar amount of donations and grants to Yellowstone								$0 00	$0 00			$0 00
	IVb4	Increase by 10%, over the 1997 level, the amount of receipts from park entrance recreation, and other fees					$1,636,490 00			$1,636,490 00	0			$1,636,490 00
	IVx	Indirect Costs split by % to specific goals								$0 00	$4,821,496 24			$0 00
	IVxx	ONPS balancing entry to equal FY-2000 Enacted base (sum of Regional assessments) -- Used for Annual Performance Plan Only								$0 00	$0 00			
		Mission Goal Subtotals =>	$0 00		$0 00	$0 00	$1,636,490 00	$10,500 00	$0 00	$1,646,990 00	$4,821,496 24		$0 00	$1,636,490 00
		TOTALS =>	$9,047,597 00	$88,366 00	$9,047,597 00	$234,286 00	$5,659,333 00	$3,622,172 00	$3,084,901 00	$21,648,289 00	$24,508,000 00	$5,251,309 77	$24,508,000 00	$46,156,289 00
							*		**				***	

*Fee Program Figures include $1,653,387 under Goal IIb1 for Fund 36 school payments Payments approximately doubled in FY 00 over FY 99 to cover prior and current school year Cooperative Agreement obligations

**FIREPRO funds increased due to higher than usual number of wildland fires (Goal Ia14) Quarters expenses (Fund 34), which are actually on a reimbursable basis against rents paid, are to cover utilities and to maintain employee housing in its current state However, per GPRA instructions, they are included under Goal IVa5 Therefore, our performance report for the year shows a large expenditure on this goal with very little accomplishment

***Actual ONPS Base expenditures for FY 2000 were $23,992,655. The total here has been artificially adjusted by $515,345 to equal the FY 2000 Enacted budget for Yellowstone, less the Regional adjustment of $140,000 mentioned below Net ONPS Base for the park was $24,196,467 after applying to the Enacted base of $24,648,000 the Regional Office Contingency assessment ($246,500), Lotus Notes assessment ($33,800), Uniform charges ($207,100), EAP assessment ($7,200), OAS assessment ($43,200), Cost of Collection base adjustment to non demo parks ($140,000), and PCS moving expense assessments ($26,400), and adding $252,667 carried over from FY 99 in Fund 04 (The Contingency and Cost of Collection assessments totalling $386,500, provided no benefit to Yellowstone) Included in the Enacted base was a $300,000 increase to fund the GYCC office The increase arguably represents either a pass through or an increased responsibility, as well as increased funding, for the park

Yellowstone NP
2000 Visitor Survey Card Data Report

Introduction

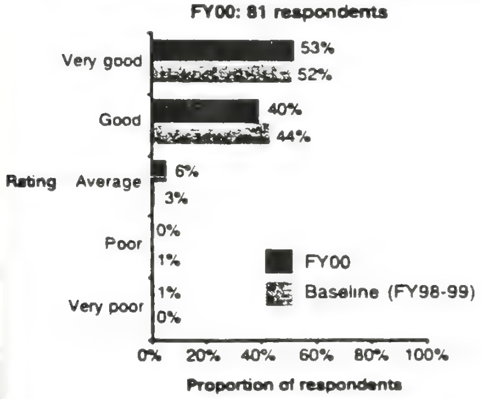
o assist the National Park Service in complying ith the Government Performance and Results Act GPRA), a visitor survey was conducted in units of e National Park System in FY00. The survey was veloped to measure each park unit's performance lated to NPS GPRA Goals IIa1 (visitor satisfaction) d IIb1 (visitor understanding and appreciation).

he results of the Visitor Survey Card (VSC) survey nducted at this park are summarized in this data port. A description of the research methods and nitations is on the back page.

elow (left) is a graph summarizing visitor opinions the "overall quality of facilities, services, and creational opportunities." This graph compares Y00 data, shown in black, with a two-year baseline data (FY98-99), shown in gray. The satisfaction easure below this graph is a combined percentage "good" and "very good" responses. This is the imary performance measure for Goal IIa1. (The isfaction measure may not equal the sum of "very od" and "good" percentages due to rounding.)

low (right) is the FY00 GRPA reporting measure Goal IIa1. The percentage included in the box ould be used for reporting GPRA Goal IIa1 rformance. The response rate for this park survey s 21%.

verall quality of facilities, services & recreational opportunities



FY00: Satisfaction measure: 93%
Average evaluation score: 4.4

Understanding the Results

Inside this report are graphs that illustrate the survey results. The report contains three categories of data—park facilities, visitor services, and recreational opportunities. Within these categories are graphs for each indicator evaluated by park visitors. For example, the park facilities category includes indicators such as visitor center, exhibits, restrooms, and so forth. In addition, responses for indicators within each category are averaged into a combined graph for the category (e.g., combined park facilities). The combined graphs for each category compare FY00 data with baseline data.

Each graph includes the following information:

- the number of visitor responses for the indicator;
- the percentage of responses which were "very good," "good," "average," "poor," and "very poor;"
- a satisfaction measure that combines the percentage of total responses which were "very good" or "good;" and
- an average evaluation score (mean score) based on the following values: very poor = 1, poor = 2, average = 3, good = 4, very good = 5.

Very Poor 1 2 3 4 5 Very Good

The higher the average evaluation score, the more positive the visitor response.

FY00 GPRA Reporting Measure for Goal IIa1

Percentage of park visitors satisfied overall with appropriate facilities, services, and recreational opportunities:

93%

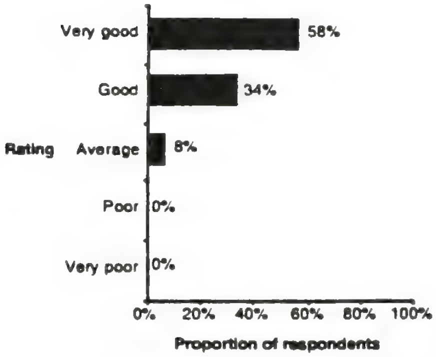
Report prepared by the University of Idaho Cooperative Park Studies Unit for the National Park Service, Department of the Interior

Report # YELL700

Yellowstone NP
Park Facilities

Visitor center

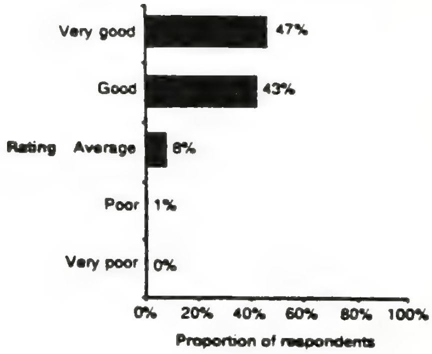
N = 74 respondents



Satisfaction measure: 92%
Average evaluation score: 4.5

Exhibits

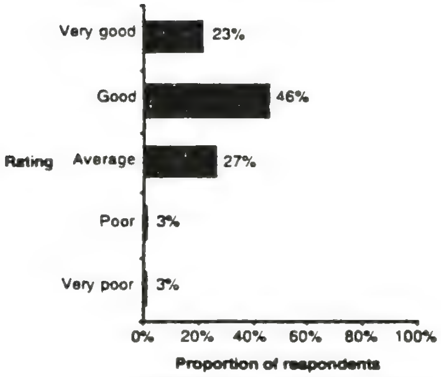
N = 76 respondents



Satisfaction measure: 91%
Average evaluation score: 4.4

Restrooms

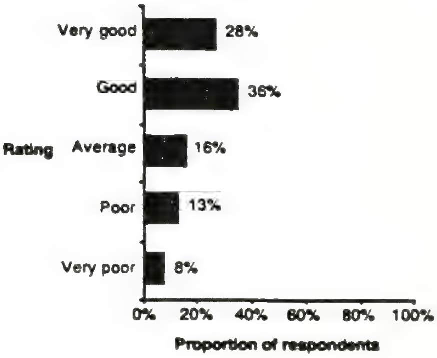
N = 79 respondents



Satisfaction measure: 68%
Average evaluation score: 3.8

Walkways, trails, and roads

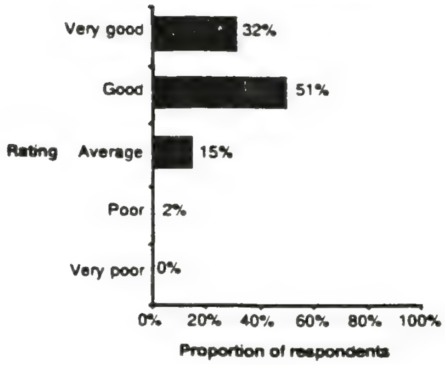
N = 80 respondents



Satisfaction measure: 64%
Average evaluation score: 3.6

Campground and/or picnic areas

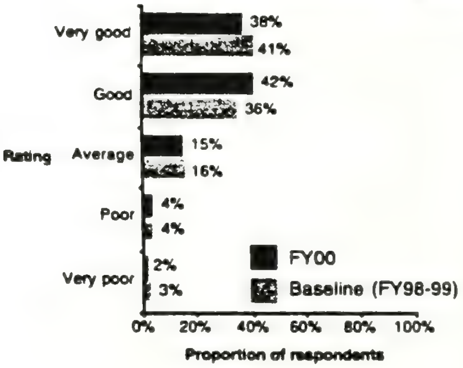
N = 59 respondents



Satisfaction measure: 83%
Average evaluation score: 4.1

Combined park facilities

FY00: 80 responses (based on 5 indicators)

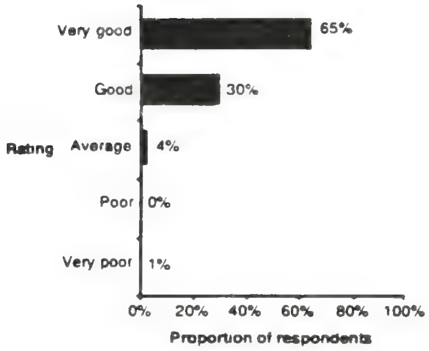


FY00: Satisfaction measure: 79%
Average evaluation score: 4.1

Yellowstone NP
Visitor Services

Assistance from park employees

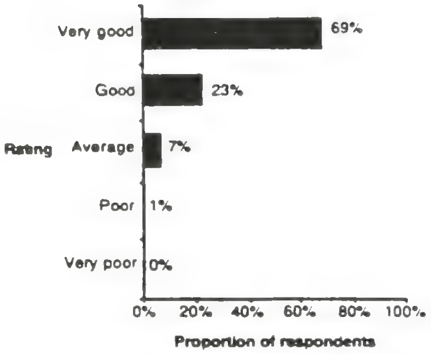
N = 77 respondents



Satisfaction measure: 95%
Average evaluation score: 4.6

Park map or brochure

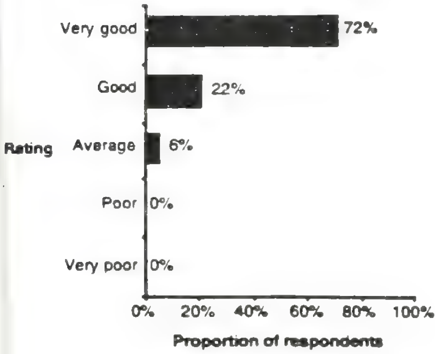
N = 83 respondents



Satisfaction measure: 92%
Average evaluation score: 4.6

Ranger programs

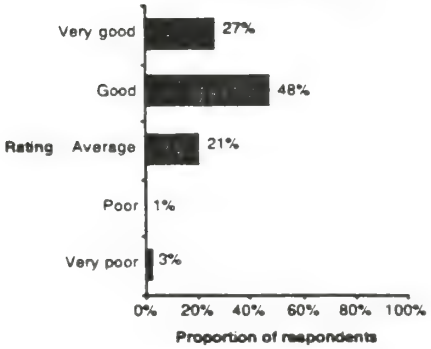
N = 36 respondents



Satisfaction measure: 94%
Average evaluation score: 4.7

Commercial services in the park

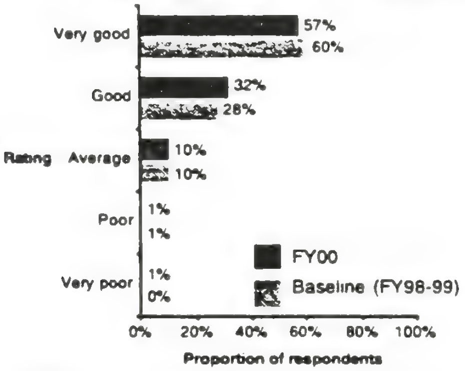
N = 73 respondents



Satisfaction measure: 75%
Average evaluation score: 4.0

Combined visitor services

FY00: 83 responses (based on 4 indicators)

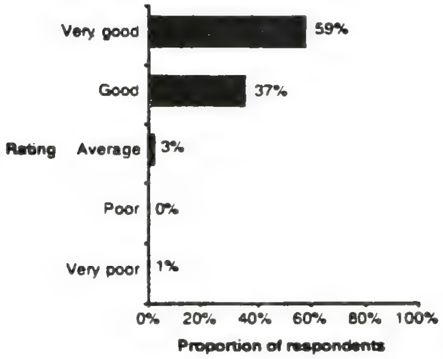


FY00: Satisfaction measure: 88%
Average evaluation score: 4.4

Yellowstone NP
Recreational Opportunities

Learning about nature, history, or culture

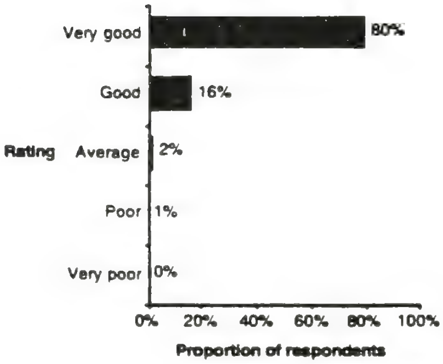
N = 70 respondents



Satisfaction measure: 96%
Average evaluation score: 4.5

Sightseeing

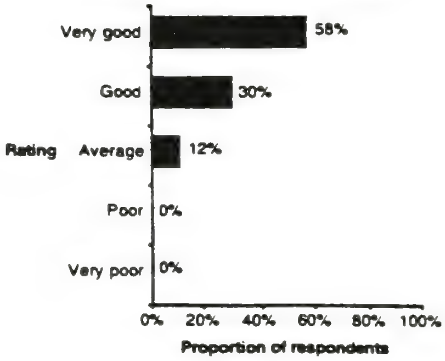
N = 81 respondents



Satisfaction measure: 96%
Average evaluation score: 4.8

Outdoor recreation

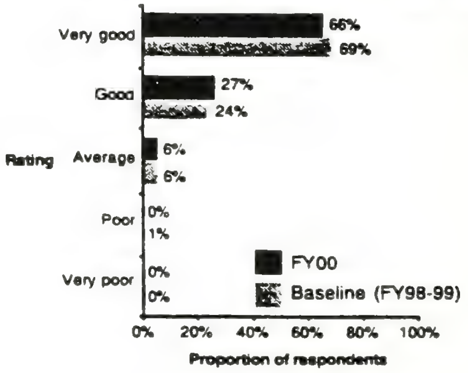
N = 66 respondents



Satisfaction measure: 88%
Average evaluation score: 4.5

Combined recreational opportunities

FY00: 81 responses (based on 3 indicators)



FY00: Satisfaction measure: 94%
Average evaluation score: 4.6

Research Methods

Survey cards were distributed to a random sample of visitors in this park during the period July 1-31, 2000. The data reflect visitor opinions about this NPS unit's facilities, services, and recreational opportunities during the survey period. Visitors at selected locations representative of the general visitor population were sampled. The results do not necessarily apply to visitors during other times of the year, or park visitors who did not visit the survey locations.

Returned cards were electronically scanned and the data analyzed. Frequency distributions were calculated for each indicator and category. All percentage calculations were rounded to the nearest percent. The survey response rate is described on the first page of this report. The sample size ("N") varies from figure to figure, depending on the number of responses.

Caution is advised when interpreting any data with a sample size of less than 30. In such cases, the word "CAUTION!" is included in the graph. This report excludes any indicator with less than 5 responses.

For most indicators, the survey data are expected to be accurate within ±6% with 95% confidence. This means that if different samples had been drawn, the results would have been similar (±6%) 95 out of 100 times.

For more information about the VSC contact the VSC Project Coordinator at the University of Idaho Cooperative Park Studies Unit (208) 885-7054

Yellowstone National Park Highlight's for FY2000

Interpretive Program

FY2000 was another extremely productive year for the Division of Interpretation at Yellowstone National Park. In May, the Long-Range Interpretive Planning (LRIP) effort was completed, and an attractive Executive Summary of Major Recommendations was published. This project was done concurrently with the development of Yellowstone National Park's Business Plan. The LRIP annual implementation plan and the park's Business Plan were closely dovetailed, culminating in a very ambitious and detailed roadmap for future interpretive operations and developments—and their costs-- at Yellowstone National Park. The plan has already proved to be invaluable in many ways, and its availability through the park's website has generated significant interest from the public.

The Interpretive staff continued work on the Canyon Visitor Education Center project, which is being funded by the Recreation Fee Demonstration Program, HFC Major Rehab funds, and donated funds. This project involves a major rehabilitation and expansion of the visitor center, doubling it from 11,000 square feet to 22,000 square feet and the development of 6000 square feet of state-of-the-art exhibits, audio-visuals, and other interactive media on the park's geologic story. The project is a large, multi-year undertaking, done in close collaboration with the U.S. Geological Survey and academic institutions that have been involved with geologic research in the park for many years.

Close on the heels of the Canyon Visitor Education Center project is the development of a new Visitor Education Center at Old Faithful. This project was initiated in the spring of 1999 with a $1.25 million donation from Unilever Corp. of America to the Yellowstone Park Foundation. Since then, approximately $6.5 million of the $18 million dollars have been raised. This new facility will have a classroom space for educational groups; it will provide over 8000 square feet for exhibits on the hydrothermal features and thermophiles; and it will include many other features that will help visitors develop a deeper understanding and appreciation of Yellowstone National Park. This year, interpretive staff conducted two workshops with scientists, interpreters, and others to develop interpretive themes and content for the exhibits. A highlight of the facility will be a 300-seat theatre to showcase a new, wide-screen, high-definition, Hydrothermal Phenomena film funded by Yellowstone Association. Interpretive staff continued to work with Northern Light Productions on the film's development. The film will premiere in spring 2001.

The Interpretive Division's publications staff was involved in carrying out a major design and content overhaul of all park-produced publications. Seven of the park trail guides have been updated and redesigned to reflect a more professional and contemporary image.

In FY2000 the Division of Interpretation initiated a multi-year program to increase and enhance the park's presence on the Internet. Significant resources were devoted to the continuing development of the Park's Official Website. New features include virtual tours, interactive children's pages, WebCams, and advanced trip planning features. Yellowstone's website has become the most visited website in the NPS. The park regularly receives very positive comments from our international constituents, as well as from visitors who are mobility-impaired. Soon, website visitors will exceed onsite visits.

The park forged several new interpretive partnerships in FY2000. Interpretive staff worked with Astronomy Magazine, the Museum of the Rockies, amateur astronomers and others to carry out an extremely successful series of programs in July focusing on the Comet LINEAR. Over 4,000 visitors benefited from the varied programs offered. A partnership with the Grizzly Discovery Center, a nonprofit educational organization in the park's gateway community of West Yellowstone, provided NPS evening programs weekly throughout the summer. Park staff initiated winter snowshoe programs in West Yellowstone, providing visitors with an enjoyable pedestrian option to snowmobiling. The programs were very well received by visitors as well as merchants who rent snowshoes in West Yellowstone.

Yellowstone's interpretive staff was very active in carrying out the park's Gateway Community Outreach Program. In FY2000, six district interpretive staff attended over 100 meetings and events in gateway communities. They worked hard to develop and maintain positive, mutually respectful, and beneficial relations with communities surrounding the park, serving as a communications conduit between the Superintendent and individuals in gateway communities and providing information on NPS policies and management activities. This was a particularly contentious year, as issues related to the controversial Winter Use EIS and Bison Management EIS dominated many of the meetings.

Education staff completed a revision of *Expedition: Yellowstone!* the park's residential education curriculum. This included an evaluation and the development of correlations with science education standards in the tri-state area. This project, funded by a PAC Exxon grant, has significantly improved the program, which serves hundreds of gateway community children each year.

Yellowstone's Junior Ranger program continues to be a cornerstone experience for approximately 15,000 children each year. This year, education staff developed a winter component, providing year-round opportunities for families to enjoy, understand and develop an appreciation for Yellowstone National Park.

Yellowstone Center for Resources

With an FY2000 budget of $5,439,618 and 50 full-time-equivalent employees, the Yellowstone Center for Resources (YCR) made great strides in better protecting and understanding Yellowstone's natural and cultural treasures in the year 2000.

The YCR building was renovated in 2000; consolidating offices for bear management, wolf project, and aquatic resources staff. Long-time park employees Sue Consolo-Murphy and Tom Olliff were promoted to the positions of branch chief for cultural and natural resources, respectively. In addition, the park filled its void in geologic expertise with the arrival of Paul Doss and Nancy Hinman. Sadly, Aubrey Haines, former Yellowstone historian and longtime friend, passed away on September 10.

Natural Resources:
In December, the record of decision for the long-range bison management plan and environmental impact statement was signed. This plan is designed to preserve the largest wild, free-ranging population of bison in the United States while minimizing the risk of brucellosis disease transmission (between bison and cattle) to protect the economic interest and viability of the livestock industry in the State of Montana. By allowing bison the opportunity to seek critical

winter range outside the park, the plan reflects a commitment on the part of the agencies to end the unnecessary killing of bison outside Yellowstone National Park. It is the result of more than eight years of negotiation and seven months of mediation between the federal agencies and the State of Montana.

On March 1, the U.S. Fish and Wildlife Service released a draft *Conservation Strategy* to guide future management of grizzly bear populations in the Greater Yellowstone Ecosystem. The strategy is the result of many years of effort by representatives of the Fish and Wildlife Service, Forest Service, NPS, and state wildlife departments. Biologists observed 37 female grizzlies with 72 cubs-of-the-year this year, the highest number ever recorded in the ecosystem.

The world's tallest geyser, Steamboat, erupted at about 6 a.m. on May 2, much to the shock of two visitors sleeping in the Norris parking lot. This was Steamboat's first eruption since October 2, 1991. Steamboat's water phase can reach heights of more than 300 feet and last 3-40 minutes.

Lake trout continued to pose a serious threat to the health of Yellowstone Lake and the wildlife depending upon it. Using gillnets, fisheries staff removed 12,788 lake trout during the summer months. In addition, fisheries biologists identified native cutthroat trout infected with whirling disease at Fishing Bridge and Pelican Creek.

By December, there were approximately 117 wolves in 15 packs or groups throughout the Greater Yellowstone Ecosystem. Wolves from the Druid Peak Pack in Lamar Valley continued to dazzle visitors, feeding on carcasses, interacting with other wildlife, and playing with their pups.

In partnership with Grand Teton National Park, Bighorn Canyon National Recreation Area, and the Rocky Mountains Cooperative Ecosystem Studies Unit, Yellowstone produced a plan to complete inventories of vertebrates and vascular plants in the three parks. The inventory effort is the first step in a long-term monitoring program for the parks, and is part of the newly launched service-wide Natural Resource Challenge.

Cultural Resource:
Archeologists from Wichita State University and the Museum of the Rockies uncovered a Cody Complex campsite on the west shore of Yellowstone Lake this past summer. This find represents the oldest in-place site yet discovered in Yellowstone National Park, dating to 7,350 BC. Cody Complex people were known for hunting *Bison antiquus*, a now extinct species of bison, although archeologists have not yet found evidence of this activity in the park. Many of the tools were made from obsidian, which was determined to originate from Obsidian Cliff, Bear Gulch and Packsaddle Creek (Idaho), Teton Pass (in Grand Teton National Park), and Conant Creek Tuff (southwest of Yellowstone in Wyoming). In addition, archeologists tested 21 other sites in support of plans to upgrade roadways in the park, as well as sites in the Black Canyon of the Yellowstone and the south shore of Yellowstone Lake.
Yellowstone's oral history project, during which staff interview individuals which shaped management of ungulates on the northern range, was featured in spring issue of *Yellowstone Science*. Former Yellowstone employees Glen Cole, Robert Haraden, Ted Scott, Dale Nuss, and John Good were just a few of those whose reflections from the 1960s are preserved on tape and written transcriptions in the park's library and archives. In addition, the park archivist interviewed former Yellowstone employee (and President) Gerald Ford.

The Internet helped Yellowstone add to its archive and museum collections. Using the web site Ebay, the park curator—working with private funds from park benefactors, purchased the original

Yellowstone Park Transportation Company ledger of stagecoach operations from 1892-1906, as well as amateur paintings dating to 1890, rare photos and postcards, and a 1928 diary of a woman's railroad journey to Yellowstone.

Resource Support:
In January, YCR published the *State of the Park* report, a comprehensive examination of the health of all of Yellowstone's programs, including the park's resources and visitor services. The *State of the Park* will be followed in 2001 by a business plan, which will analyze Yellowstone's financial needs. In addition, YCR published *Yellowstone In the Afterglow: Lessons from the Fires*, written by Mary Ann Franke, and *Wetland Resources of Yellowstone National Park*, by Charles Elliot and Mary Hektner.

In 2000 the Research Permit Office authorized 238 research-collecting permits. Of the 238 research projects, 182 were renewed from 1999 and 56 were new for 2000. Studies on the Yellowstone's microorganisms make up 19 percent of all the research in the park; 18 percent is related to the extraordinary wildlife populations; and geology represents 17 percent of the research.

Visitor Protection

During 2000 the protection staff were extremely busy as nearly all categories of statistics were at record high levels. Over 3.1 million visitors yielded a record year for Motor Vehicle Accidents (616), Emergency Medical Responses (872), Court Cases (300), Snowmobile Violations (256) and 8,787 Part II incidents, the highest total in the National Park System, nearly double that of the next closest park.

Unfortunately, funding and staffing levels are not rising to meet the demands. In fact, the opposite is happening and fewer of us are forced to do more with less. Particularly critical now is our lack of trained and qualified structural firefighters as well as appropriate equipment. In nearly every sub-district we are unable to field a crew qualified and capable to safely enter a burning structure for rescue purposes.

There were several harrowing emergency incidents in the park during the year; the most notable is the accidental immersion of three young concession employees in a 166-degree thermal pool near the Firehole River. This tragic incident resulted in one fatality however; the two other victims were burned over 70 to 90 percent of their bodies and miraculously survived. The swift and efficient care by rangers from Old Faithful and Madison had direct and positive impact on the potential for survival.

Our Wildland Fire staff was also very busy this year. We not only dealt with the nearly 8,000 acres of wildland fire here in the park this year, and the commensurate structure protection provided in the threatened Bechler and South Entrance areas, we also sent over 200 park personnel out to other fire incidents to assist as needed. Several of our staff spent several weeks involved with the Cerro Grande incident.

Our aggressive weed control and exotic vegetation management program continued to be successful this year. Not only did we survey over 6,500 acres in the park with 90 percent control efforts; we also sent park staff out to six other NPS units and other locations throughout the Greater Yellowstone ecosystem.

Staff embarked on several new and interesting projects of vital importance to the park including; Improving physical security at entrance stations and throughout the park, upgrading and improving the First Amendment Special Use Permit process and the FA sites themselves, reviewing and upgrading all traffic control signs and devices throughout the park and more. Further, division staff participated in a variety of service-wide initiatives and programs including SET Team, Re-writing DO-58, Service-wide All Risk Management Teams, Service-wide Technical Rescue instruction, the Women in Law Enforcement Task Force and much more.

2000 was year two of our successful Air Force Reserve training program in Yellowstone. A total of 11 Air Force Reserve EMT's and Medics from Wright-Patterson Air Force Base in Ohio spent two weeks each in the park running on all rescue and medical calls, very capably assisting park staff and developed skills and knowledge that will help them in the event of a mobilization of their unit.

Division staff, along with a host of volunteers monitored 81 different thermal pools this year and were involved with a variety of cleaning projects yielding coins, cigarette butts, asphalt, sticks, rocks and etc... that had to be removed item by item, all by hand, occasionally from a canoe.

Protection staff managed a series of excellent Youth Program projects again in 2000. Through donations from the Loyal Order of the Moose, 30 students and 12 staff completed 13,440 hours of service on backcountry trails, campground restoration, building maintenance and more. Public Lands Corps contributed $115,000 in grants, funding eight Youth Program Work Crews from Montana Conservation Corps completing 9,920 hours of work on trails, campgrounds and exotic vegetation management. The Student Conservation Association provided 22 students, completing 11,140 hours of service assisting park staff with visitor center operations, geothermal inventorying, and backcountry work and fisheries operations.

Maintenance Division

The Maintenance Division's workload in 2000 focussed on the park's major infrastructure problems - roads, utility systems, buildings, and housing. Much of what was accomplished or, in many cases deferred was driven by budget concerns that resulted in over 20 status positions being unfilled. Much of the work, outside of the barest of operations, was accomplished with "soft money" funds that could only be used for specific projects. These projects were much needed, but did not, in most cases, help the general day-to-day operations. The lack of a viable operational base and cyclic maintenance program is still increasingly evident, especially in roads. If funding does not increase the new roads that we are constructing with Federal Lands Highway Program (FLHP) funds cannot be properly maintained. Aside from stabilizing major road failures, little or no preventative maintenance is occurring.

The lack of staff has put increasingly stressful burdens on the existing staff and some things that are getting accomplished are not receiving correct oversight, follow-up, or documentation. There is a tendency to take care of the problem in the short-term, while the long-term problem get worse and worse. The sewage system at the Norris Geyser Basin has now been shut down for six years and groundwater and surface water are being impacted by sewage in the Old Faithful area. The Old Faithful sewage plant construction began in 2000, so this problem should be solved.

Yellowstone has made great strides in forming partnerships with other entities, and the Maintenance Division is no exception. The concept that started with the "Greening of Yellowstone" workshop that occurred in 1996, continued in 2000 as the division continued to work with the surrounding states and counties to work to solve problems. This was particularly evident in the air pollution work done with bio-synthetic oils, lubricants, and oxygenated fuel in conjunction with the State of Montana, the Department of Energy, and others with recycling and composting projects in southwest Montana. The park has removed virtually all hazardous cleaning supplies and replaced them with non-polluting substances. With these types of programs, the park has been recognized as a leader in pollution prevention and reuse of resources in the Park Service. These types of projects have brought the area and the park together and have resulted in benefits for all involved.

The solid waste program continues to make strides with ongoing partnerships with the cities and counties in southwest Montana. The park is actively participating in the Headwaters Cooperative Recycling Project and is leading the way in the composting study for waste disposal in the area. A municipal solid waste composting facility is scheduled for construction in 2001 in the West Yellowstone area due in part to Yellowstone's participation in the project.

Construction of four-plex units at Canyon and Northeast Entrance was ongoing, with occupancy expected early in FY2001. The units were funded out of the trailer replacement program and replaced four substandard temporary housing units.

Housing:

The Bechler Ranger Station was rehabilitated, rewired, and provided with a fire sprinkler system in 2000.

Building 5A was returned to its original configuration.

Building 3 - the Superintendent's house was reshingled with historically accurate tiles.

The Peale Island cabin was restored to its original interior condition.

Minor rehabilitation, painting and heating work was accomplished on the following buildings: # 33, 95, 96, 9A, 32, 74, 713, 562, 501B, 70N, 710, 629 and 585.

One unit in building 258 at Old Faithful was gutted and put back together.

Work began on the rehabilitation of building 418 at Madison.

Buildings:

Building 27, Yellowstone Center for Resources was completed with the rebuilding of the basement wing and the installation of an elevator. The building has now been restored.

Building 38, Old Faire Cache and Calvary Stable had the foundation stabilized by compaction grouting beneath the building.

Building 39, the Pagoda, was gutted and restored to an historical appearance.

A restroom in the Mammoth Campground was rehabilitated and made accessible.

A new vault toilet was installed at the West Entrance.

The steps to the Mammoth Visitor Center were redone with the addition of handrails.

Roofing continued on the Mammoth Clinic and was completed on the Bridge Bay Marina buildings.

Utilities:

A five million-dollar contract was awarded and the replacement of the Old Faithful Wastewater Treatment Facility begun.

The Old Faithful Lodge, the Old Faithful Inn, and the Lake Lodge sewage lift stations were completely rehabilitated and standby power was added to each facility.

A new sewage system was installed at the Northeast Entrance that should go on line in early 2001.

A new water system at the South Entrance was started with completion scheduled for 2001.

A contract worth approximately one million dollars was awarded in late 2000 to line some of the sewers at Lake and Mammoth to prevent groundwater from entering the sewage system.

A water line was installed at Canyon to complete a fire loop and to serve the new Canyon fourplex.

Grounds:

Boardwalk work continued with the installation of recycled plastic boardwalk on a portion of the Grand Prismatic walk.

The Lamar Picnic Area was removed from a floodplain. The vault toilet was reinstalled near the Soda Butte trailhead.

The old Turbid Lake Road was partially restored. Work will continue on this project next year.

A helispot at Old Faithful was constructed behind the clinic/ranger station for emergency operations.

The Lewis Lake boat dock was constructed using Fee Demonstration money.

Roads:

The reconstruction of the road at the Fishing Bridge intersection and near Arnica Creek was completed in 2000. The work also overlaid a portion of the road from Lake to West Thumb around Gull Point and Sand Point.

A major slide in the Gardner River Canyon closed the road for three days in December 1999. The slide was stabilized with the use of explosives and reopened.

The road from Mammoth to Indian Creek was chip-sealed.

A large portion of the road from Indian Creek to Roaring Mountain was overlaid with a thin overlay to keep the road from totally failing. The work was funded with Recreational Fee Demonstration funds.

Trails:
Constructed and repaired deteriorating retaining and drainage structures on .5 miles of trail at Tower Falls with funding assistance from the Yellowstone Foundation.

In partnership with the Montana Conservation Corps, relocated .75 miles of unmaintainable alignment and reclaimed .5 miles of entrenched fall line trail on the Specimen Ridge Trail. Also relocated .75 miles of trail alignment and restored damaged wetland areas on the Daly Creek Trail.

Relocated 1.25 miles of trail at Heart Lake to protect and restore sensitive meadow and wetland areas.

Relocated 400 feet of the Bighorn trail that was destroyed by a landslide in 1995. Restored adjacent wetlands.

Administrative:
A business plan for maintenance was well underway.

The Assistant Chief of Maintenance position was filled, as was the North District Maintenance Supervisor.

Administration

During 2000 there were many changes in the Division of Administration. Gail Menard, the Chief of Administration since 1996, transferred to Santa Fe to become Administrative Officer for the Southwest Support Office. Carol Staton, her assistant, completed a four-month detail in the Finance Office. Don Striker, the Comptroller, transferred to the superintendency at Fort Clatsop. Blaine Flint, from Hill Air Force Base, was selected to replace him. As of October, Blaine and Joanne Timmins, the Personnel Officer, were named alternate Acting Administrative Officers.

Personnel:
During 2000 the Personnel Office implemented many reorganizational changes started in 1999. A new position of Assistant Personnel Officer, GS-201-12, was created and Maribeth Wuertz was promoted to that position. Carrie Lang and Holli Traucht were hired, as GS-201-5/7/9's to handle processing and staffing for various divisions within the park. Brenda Tupek was appointed to a GS-201-7/9 position performing processing and staffing for the Division of Maintenance. Sue Crowfoot was promoted to the team leader for the employee services group. She subsequently retired in December. Patty Oestreich was promoted to a GS-303-6/7 with responsibilities for benefits and retirement.

Contracting and Property Management:
There were two classes offered on the Bank of America credit cards. Use of cards is continuing to expand. There are over 250 cards issued to park employees with either or both travel and purchasing. Credit cards are being used extensively by the procurement and supply center personnel as demonstrated below.

Contracting/Procurement:
Over 5300 requisitions were processed totaling approximately $10.5 million as follows:

Contracts: As follows as well as 16 other open contracts to administer

8 new awards	
3 Services	$ 254,436
2 supply contracts	$ 317,679
3 construction	$1,133,379
7 Contract Modification	$ 269,379
11 Task Orders	$ 447,687
	$2,180,119

Agreements:

4 General Agreements	$ -0-
6 Interagency Agreements	$ 193,757
2 Cooperative Agreements	$ 99,477
36 Mods & Work Orders	$1,865,034
	$2,158,268

Small Purchases:

Type	Quantity	Dollar Amount
Purchase orders	246	$2,224,902
Blanket Purchase Orders	34	531,272
Third Party Drafts	429	221,447
Imprest Fund	Closed	
GSA Advantage/Muffin	158	237,824
Government Bills of Lading	24	12,671
Government Printing Office	22	312,729
IMPAC - VISA	2656	2,679,872
		$ 6,220,717

Supply Center Activities

Total high cost sales - $242,329.

The supply operation recycled 136 bales of corrugated cardboard, totaling 23,929 pounds. Cardboard recycling continues to increase every year.

Over 1,785 uniform packages were delivered to uniformed employees.

Property Management:
We acquired over $76,578 in excess-fired brass

In cooperation with the Ranger Division we processed over 3,534 lost and found items. The process involved donations to Community Hope, conversion of items to government property and sale of remaining items at the annual GSA action.

Reports of Survey (DI-103)	119
Report of Excess Property (SF-120)	9
Report of Excess Property for Sale (SF-126)	67
Transfer of Property (DI-104)	17
Receiving Reports (DI-102)	31

Of the 119 Reports of Survey, 39 were as a result of motor vehicle accidents. A great deal of time as been spent in processing and documenting these survey actions. Ten Survey Board meeting were held.

Current Property Status

	Number of Items	Value
NPS	10,334	$29,232,990.19
TWRS	2,941	$ 5,841,303.73

In September 2000 GSA came to Yellowstone National Park to conduct a GSA auction. There were 234 items sold for $163,768.
The first physical inventory was completed since converting from the old "Prop" system to the new Fixed Asset Subsystem. Due to errors occurring during the switch over, the inventories required additional time to reconcile.

Budget and Finance Office:
In FY-2000 the Budget and Finance Office continued its support of parkwide budget formulation and execution through assistance to the park's management team and operating divisions. Staff continued to process unobligated payments and reimbursements, perform billing and collection services, and to process cash receipts. We reorganized during the winter, when a Budget Officer position was created to direct day-to-day operations. The Comptroller position, which was vacated at this time, was subsequently re-described to involve parkwide strategic planning duties, including GPRA coordination and was filled during the summer. Other staff changes included the creation and filling of two permanent Cash Clerk positions and the departure of the Cash and Debt Office Team Leader. The Team Leader position was lapsed for the remainder of the FY. Using the new "Advantage" program software, we ran the Fee Office without hiring additional seasonal staff. Other office staff pitched in to count money and prepare deposits during the busy summer months. This was an experiment to see if the office could be run with only the two permanent cash clerks. Although we got by for the season, we found that even with the new computerized system, four cash clerks are needed for the core summer months.

During the spring, we began having weekly staff meetings in the office and started convening monthly Budget Team meetings with division budget personnel—the goal of these meetings was to facilitate improved communications within the office and with our customers. During the spring the staff created a mission statement and a list of team goals, including providing prompt, friendly customer service and meeting minimum turn-around times on all document processing. In addition, the staff began a process of documenting all job processes through creation of Standard Operating Procedures (SOPs). We had found that, with changes in technology and budget and accounting systems, most of our daily processes were being passed on only by word-of-mouth from one employee to another. With a goal of providing better customer service, we realized that we needed documentation of what we do, and how to do it. Once completed, our hope is that the SOPs will provide a valuable training tool for new employees, as well as a means of providing more structured cross training within the office.

In addition to supporting the park's budget and management staffs by coordinating budget calls, directing accounting operations, and managing cash and debt, the Finance staff produced quarterly status of funds reports which tracked over $48 million in obligations in 807 accounts under 15 fund sources. We also produced the annual staffing report of 537 FTE, and compiled funding information for the park's on-going business planning effort.

Accounting transactions processed this fiscal year included:
2848 third party draft checks
343 utility payments totaling $2.8 million
420 miscellaneous reimbursements and other payments totaling $130,450
1629 travel vouchers totaling $888,408
834 year-end closing receiver documents
20 GSA work order and vehicle rent reports totaling $231,049
4 IRS excise tax rebates totaling $20,073
1124 bills for collection and official receipts totaling $7,008,173
113 fee deposits totaling $7,868,519
50 administrative deposits totaling $2,478,426

Volunteer-in-Parks (VIP) Program:

Yellowstone had another active year with regard to the VIP program. Throughout the fiscal year, 280 individuals and/or groups contributed 71,879 hours. These volunteers were scattered throughout the park and in all divisions. The breakdown is as follows: Administration hours, 230 hours; Archeology hours, 2,163; Curatorial hours, 1,233; Campground Host hours, 15,950; Interpretation hours, 4,700; Maintenance hours, 1,609; Protection hours, 1,308; and Resource Management hours, 44,686.

Yellowstone's authorized amount for the VIP program continues to be $10,000/year; however, an additional $900 was secured from Region at the end of the fiscal year to cover additional program costs.

Training:

Yellowstone sponsored over 80 training classes in various locations in the park ranging in variety from Supervisory Excellence training to forklift training to Avalauncher training. The park expended over $127,000 in tuition costs alone.

A complete listing of all training's both in and out of the park and those who attended can be found in the Park Training Coordinator's Office.

Diversity Recruitment:

In September/October 1999 three Yellowstone employees partnered with Rocky Mountain National Park and traveled to Tuskegee University in Alabama to participate in their university job fair. It was the second year in a row that Yellowstone recruited on this campus. Tuskegee University is a Historically Black/College University (HBCU) founded by Booker T. Washington and is home to three NPS sites: Booker T. Washington NM, Tuskegee Institute NHS, and the newly created Tuskegee Airmen NHS.

Because of this effort, Yellowstone employed three students from Tuskegee for the 2000 summer in the Ranger Division; one worked in the Backcountry Office at Old Faithful while the other two worked at the South and East Entrances as Visitor Use Assistants.

Yellowstone's workforce continues to become more diverse through both passive and active recruitment efforts albeit slowly.

Planning Office

Activities and highlights during Fiscal Year 2000 for the Planning Office of Yellowstone National Park are contained in the sections discussing Partnerships (such as INEEL, Clean Cities, and the Western Transportation Institute); Visitor Use; the Greening of Yellowstone; Roads; and Nuclear Waste Treatment in Idaho. Within the Annual Goals, the Planning Office activities are also found in the discussions on air quality, museum collections, and planning.

In staffing changes for the year, Mary Sarah Creachbaum left Yellowstone for Grand Teton, but continued to assist Yellowstone throughout the year on the Winter Use plan. Yvonne Iron left the Planning Office as permanent Planning Assistant, and was replaced by Jennifer Conrad. Tom Barr worked in the office throughout the year as a temporary planning assistant helping with the Winter Use Plan.

Public Affairs Office

The year 2000 was again a busy one for the Yellowstone Public Affairs staff. The staff consisted of three full-time employees, one subject-to-furlough employee, and one seasonal employee.

During the year, the Public Affairs staff issued 97 press releases. Many of the releases addressed difficult and controversial issues such as winter use, bison management, NEPA projects, bioprospecting, fatalities occurring in the park, poaching incidents, bison gorings, road construction projects, sewage spills, fire activity inside and outside the park, grizzly bear management, wolf management and special events. Issuing this many press releases resulted in a plethora of media contacts to explain issues and follow up with additional information.

One of the major special events supported by the Public Affairs staff this year was in recognition of the U.S. Army's stewardship of Yellowstone from 1886 to 1918. A ceremony was held in front of the Albright Visitor Center in September as a part of the Army's 225th birthday celebration. Approximately 150 people attended the ceremony. The Public Affairs Office sponsored the 11th Annual Christmas Tree Lighting Ceremony in December. We also assisted with a dedication ceremony commemorating the opening of the new and renovated facilities at Arch Park, located at the historic north entrance to Yellowstone National Park in Gardiner, Montana, on May 6.

The Public Affairs staff issued 85 Commercial Filming Permits in response to approximately 150 inquiries. The money collected from the companies involved completely paid the salary of the seasonal employee hired to monitor filmers and a portion of the Public Affairs receptionist position. Many of these filming projects resulted in documentaries regarding controversial issues as well as scenic travel documentaries.

The Public Affairs staff hosted approximately 16 foreign dignitary groups including officials from Australia, New Zealand, Brazil, British Columbia, China, Ecuador, Israel, Korea, Germany, Russia, South Africa, Spain, and Tibet.

Freedom of Information Act requests continue to increase. The Public Affairs staff responded to 23 FOIA requests during the year, many of which were quite extensive requiring weeks of staff time and reams of duplication paper.

Superintendent's Office

The year 2000 was a fast and furious one for the office of the Superintendent. The Superintendent traveled to places as diverse as South Africa, and Brazil to further their knowledge of U.S. National park management. He also traveled to 35 parks and spent upwards of three months total compiling data for a servicewide report involving the International Chiefs of Police, FLETC, and hundreds of ranger staff to produce "Policing the National Parks, 21st Century Requirements." The implementation of this report's findings and recommendations will begin in 2001.

The Superintendent's office helped to host the Appropriations Committee's visit in July and an August "Park's Issues Forum" at Old Faithful sponsored by Senator Bob Graham of Florida. The forum's theme revolved around the Senator's park funding legislation, the national resource needs of national parks, and cultural diversity issues.

In October, the Superintendent's office, division chiefs, and the Yellowstone Park Foundation hosted a "Friend's Weekend" at Lake Hotel and Walter Chronkite was the special guest commentator. The event focused on fundraising for the Old Faithful Visitor Education Center.

Also in October, the Assistant Superintendent, Marvin Jensen and his wife Mary Lynn bid farewell to Yellowstone and took up residence in Fort Collins Colorado where Marv will head up the NPS' "Soundscapes" division as Program Manager.

The Superintendent spent many days in Washington D.C. briefing the Assistant Secretary and staff on park issues and made sure the ROD for Bison and Winter Use would be signed by this Administration. The ROD for the Winter Use Plan was signed in November and the ROD for Bison was signed in December 2000 bringing to close many long, difficult years for both issues.

Staffing changes in the Superintendent's office included, Paula Clarke accepting a GS6 position in the Contracting office, Kerrie McCartney taking over as the Secretary in a GS5/6/7 position, and Jan Laye promoted to a GS09 as the Superintendent's Administrative Assistant.

YELLOWSTONE

NATIONAL PARK

Annual Performance Report
FY2001

Yellowstone National Park
FY2001 Annual Performance Report

Mission Statement

Preserved within Yellowstone National Park are Old Faithful and the majority of the world's geysers and hot springs. An outstanding mountain wildland with clean water and air, Yellowstone is the home of the grizzly bear and wolf and free ranging herds of bison and elk. Centuries-old sites and historic buildings that reflect the unique heritage of America's first national park are also protected. Yellowstone National Park serves as a model and inspiration for national parks throughout the world. The National Park Service preserves, unimpaired, these and other natural and cultural resources and values for the enjoyment, education, and inspiration of this and future generations.

Approved: ______________________ *Date:* 11/06/01
Franklin C. Walker
Acting Superintendent

Yellowstone NP
2001 Visitor Survey Card Data Report

Introduction

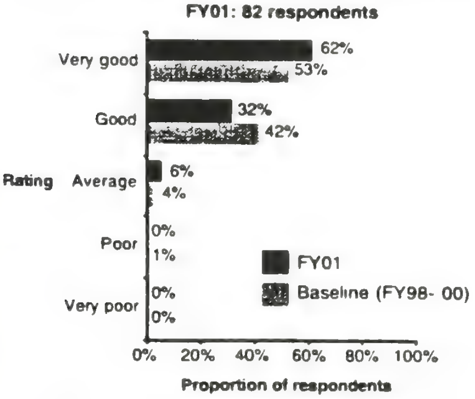
To assist the National Park Service in complying with the Government Performance and Results Act (GPRA), a visitor survey was conducted in units of the National Park System in FY01. The survey was developed to measure each park unit's performance related to NPS GPRA Goals IIa1 (visitor satisfaction) and IIb1 (visitor understanding and appreciation).

The results of the Visitor Survey Card (VSC) survey conducted at this park are summarized in this data report. A description of the research methods and limitations is on the back page.

Below (left) is a graph summarizing visitor opinions of the "overall quality of facilities, services, and recreational opportunities." This graph compares FY01 data (shown in black) with baseline data (shown in gray). The satisfaction measure below this graph is a combined percentage of "good" and "very good" responses. This is the primary performance measure for Goal IIa1. (The satisfaction measure may not equal the sum of "very good" and "good" percentages due to rounding.)

Below (right) is the FY01 GRPA reporting measure for Goal IIa1. The percentage included in the box should be used for reporting GPRA Goal IIa1 performance. The response rate for this park survey was 21%.

Overall quality of facilities, services & recreational opportunities



FY01: Satisfaction measure: 94%
Average evaluation score: 4.6

Understanding the Results

Inside this report are graphs that illustrate the survey results. The report contains three categories of data—park facilities, visitor services, and recreational opportunities. Within these categories are graphs for each indicator evaluated by park visitors. For example, the park facilities category includes indicators such as visitor center, exhibits, restrooms, and so forth. In addition, responses for indicators within each category are averaged into a combined graph for the category (e.g., combined park facilities). The combined graphs compare FY01 data with baseline data.

Each graph includes the following information:

- the number of visitor responses for the indicator;
- the percentage of responses which were "very good," "good," "average," "poor," and "very poor;"
- a satisfaction measure that combines the percentage of total responses which were "very good" or "good;" and
- an average evaluation score (mean score) based on the following values: very poor = 1, poor = 2, average = 3, good = 4, very good = 5.

Very Poor	1	2	3	4	5	Very Good

The higher the average evaluation score, the more positive the visitor response.

FY01 GPRA Reporting Measure for Goal IIa1

Percentage of park visitors satisfied overall with appropriate facilities, services, and recreational opportunities:

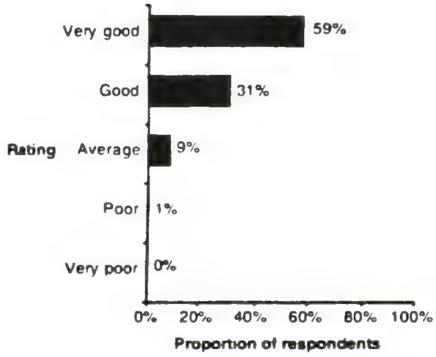
94%

Report prepared by the University of Idaho Cooperative Park Studies Unit for the National Park Service, Department of the Interior

Yellowstone NP
Recreational Opportunities

Learning about nature, history, or culture

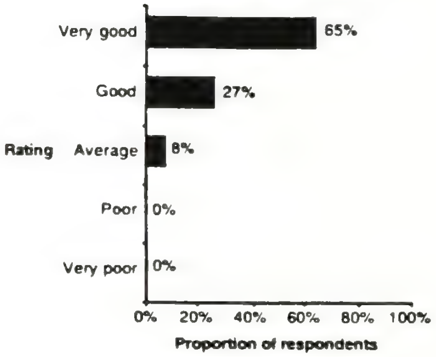
N = 70 respondents



Satisfaction measure: 90%
Average evaluation score: 4.5

Outdoor recreation

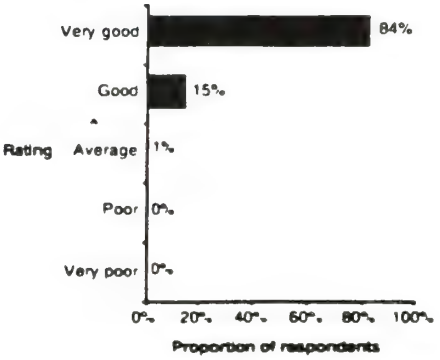
N = 66 respondents



Satisfaction measure: 92%
Average evaluation score: 4.6

Sightseeing

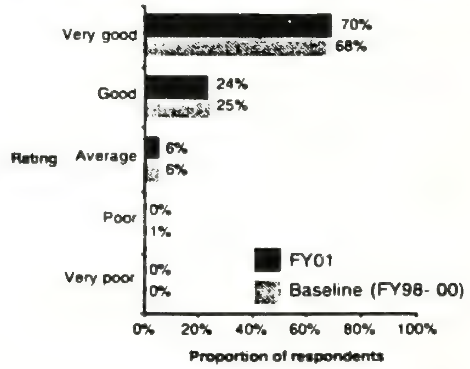
N = 79 respondents



Satisfaction measure: 99%
Average evaluation score: 4.8

Combined recreational opportunities

FY01: 79 responses (based on 3 indicators)



FY01: Satisfaction measure: 94%
Average evaluation score: 4.6

Research Methods

Survey cards were distributed to a random sample of visitors in this park during the period July 1-31, 2001. The data reflect visitor opinions about this NPS unit's facilities, services, and recreational opportunities during the survey period. Visitors at selected locations representative of the general visitor population were sampled. The results do not necessarily apply to visitors during other times of the year, or park visitors who did not visit the survey locations.

Returned cards were electronically scanned and the data analyzed. Frequency distributions were calculated for each indicator and category. All percentage calculations were rounded to the nearest percent. The survey response rate is described on the first page of this report. The sample size ("N") varies from figure to figure, depending on the number of responses.

Caution is advised when interpreting any data with a sample size of less than 30. In such cases, the word "CAUTION!" is included in the graph. This report excludes any indicator with less than 5 responses.

For most indicators, the survey data are expected to be accurate within ±6% with 95% confidence. This means that if different samples had been drawn, the results would have been similar (±6%) 95 out of 100 times.

For more information about the VSC contact Jennifer Hoger, VSC Project Coordinator
at the University of Idaho Cooperative Park Studies Unit (208) 885-4806

Performance By Park

Report: PERF PARK

FOR FISCAL YEAR 2001

FOR: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK	GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF. TARGET PLANNED	PERF. TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
YELL	Ia0	YELL-01	Other	375	356	356	356	$4,331	$2,633	63.3	25.3
	Ia0	YELL-02	Other	80	72	90	72	$797	$946	11.8	9
	Ia0	YELL-03	Other	100	100	100	100	$480	$346	14.7	12.7
	Ia0	YELL-04	Other	124,000	124,000	125000	131000	$19	$20	.3	.2
	Ia0	YELL-06	Other	4	4	4	4	$5	$295	1.1	9.7
	Ia0	YELL-05	Other	91	91	91	39	$0	$0	15.8	40.7
	Ia1A	YELL	Restoring Formerly Developed Lands	45	0	3.5	13.8	$134	$45	13.6	2.7
	Ia1B	YELL	Containing Exotic Plant Species	822	0	7	7	$263	$286	11.3	3.6
	Ia2A	YELL	Improving T&E Species	3	1	1	1	$314	$279	4	2.6
	Ia2B	YELL	Stable T&E Species	3	2	2	2	$517	$567	7.6	5.6
	Ia3	YELL	Air Quality in Parks		0			$32	$19	.6	5
	Ia4	YELL	Water Quality	1	1	1		$38	$16	.3	1

Fund Source(s) Displayed:

ONPS Base

FOR FISCAL YEAR 2001

FOR: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK	GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF. TARGET PLANNED	PERF. TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
YELL	Ia5	YELL	Historic Structures (LCS)	907	400	400	473	$843	$44	3.4	24.4
	Ia6	YELL	Park Museum Collections	536	163	175	184	$20	$34	2.5	2.5
	Ia8	YELL	Archeological Sites (ASMIS)	605	101	101	108	$32	$74	.6	1.1
	Ib2A	YELL	Archaeological Site Inventory	957	0	964	1023	$20	$65	.5	.9
	Ib2B	YELL	Cultural Landscape Inventory		0	2	1	$25	$19	.5	2
	Ib2C	YELL	LCS Inventory Information Updated	907	0	907	907	$22	$44	.3	.4
	Ib2D	YELL	Museum Objects Cataloged	115,582	115,582	122105	124720	$157	$108	5.1	1.4
	Ib2E	YELL	Ethnographic Resources Inventoried		0	26		$5	$61	1.1	9
	Ib2F	YELL	Historical Research Baseline		0			$5	$15		3

Fund Source(s) Displayed:

ONPS Base

FOR FISCAL YEAR 2001

FOR: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK	GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF. TARGET PLANNED	PERF. TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
YELL	Ib3	YELL	Vital Signs Identified		0			$5	$224	.2	2.2
	IIa0	YELL-01	Other	79	79	79	87	$0	$0		
	IIa0	YELL-02	Other	91	91	91	88	$0	$0		
	IIa0	YELL-03	Other	93	93	93	94	$0	$0		
	IIa1	YELL	Visitor Satisfaction	95	0	95	94	$9,301	$10,243	172.8	178.6
	IIa2	YELL	Visitor Safety	353	0	353	166	$6,772	$7,807	137.9	213.1
	IIb0	YELL-01	Other		0	95	100	$61	$117	2.3	2.5
	IIb1	YELL	Visitor Understanding and Appreciation	59	0	59	61	$815	$541	16.9	23.7
	IIIaX	YELL	Projects with Partners - External	1	0	1	1	$191	$215	3.7	.9
	IVa3A	YELL	Performance Standards Linked to Goals	361	361	361	361	$0	$0		

Fund Source(s) Displayed:

ONPS Base

FOR FISCAL YEAR 2001

FOR: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK	GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF. TARGET PLANNED	PERF. TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
YELL	IVa4A	YELL	Diversity of the Labor Force - Permanents	93	32	32	40	$0	$0		
	IVa4B	YELL	Diversity of the Labor Force - Seasonals	403	179	180	206	$0	$0		
	IVa4C	YELL	Disabled Representation - Permanents	361	8	8	8	$0	$0		
	IVa4D	YELL	Disabled Representation - Seasonals	403	3	3	9	$0	$0		
	IVa5	YELL	Housing Units Removed, Replaced or Upgraded	343	343	308	294	$0	$0		
	IVa6A	YELL	Lost-time Injury Rate	4	4	19	11	$0	$0		
	IVa6B	YELL	Workers' Compensation Hours	1,379	1,379	1379	848	$0	$0		

Dollars are Displayed in Thousands

Fund Source(s) Displayed:

ONPS Base

ance By Park

Report: PERF_PARK

FOR FISCAL YEAR 2001

FOR: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK	GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF. TARGET PLANNED	PERF. TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
YELL	IVa7	YELL	Construction Projects Meeing Standards	8	8	1	1	$0	$0		
	IVb1	YELL	Volunteer Hours	43,283	43,283	45000	80722	$0	$0		
	IVb2A	YELL	Cash Donations and Cash Grants	82,506	82,506	85000	207242	$0	$0		
	IVb2B	YELL	Donations In-kind - Friends Groups, etc.	208,843	208,843	300000	1560000	$0	$0		
	IVb2C	YELL	Cooperating Assoc. Donated Value	490,648	490,648	500000	475268	$0	$0		
	IVbX	YELL	Projects with Partners - Internal	1	1	1	1	$0	$0		

Dollars are Displayed in Thousands

	BASELINE	MET COND.	PERF. TARGET PLANNED	PERF. TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
Total For Park:	*********	*********	*********	*********	$25,204	$25,063	492.2	566.6

Dollars are Displayed in Thousands

	BASELINE	MET COND.	PERF. TARGET PLANNED	PERF. TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
Total For Report:	1,074,425	1,068,734	1183493.5	2584712.8	$25,204	$25,063	492.2	566.6

Fund Source(s) Displayed:

ONPS Base

By Park

FOR FISCAL YEAR 2001

FOR: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK	GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF. TARGET PLANNED	PERF. TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
YELL	IVa7	YELL	Construction Projects Meeing Standards	8	8	1	1	$0	$0		
	IVb1	YELL	Volunteer Hours	43,283	43,283	45000	80722	$0	$0		
	IVb2A	YELL	Cash Donations and Cash Grants	82,506	82,506	85000	207242	$0	$0		
	IVb2B	YELL	Donations In-kind - Friends Groups, etc.	208,843	208,843	300000	1560000	$0	$0		
	IVb2C	YELL	Cooperating Assoc. Donated Value	490,648	490,648	500000	475268	$0	$0		
	IVbX	YELL	Projects with Partners - Internal	1	1	1	1	$0	$0		

Dollars are Displayed in Thousands

Total For Park:	*********	*********	*********	*********	$25,204	$25,063	492.2	566.6

Dollars are Displayed in Thousands

Total For Report:	1,074,425	1,068,734	1183493.5	2584712.8	$25,204	$25,063	492.2	566.6

Fund Source(s) Displayed:

ONPS Base

Mission Goal	Goal #	Description		ONPS Base Totals	Grand Total
Parkwide Management and Administrative					$0 00
Ia					
	Ia0 YELL 01	Natural Resources Fauna	18	$2,632,792 59	$2 698 255 15
	Ia0 YELL 02	Geothermal Features	88	$945 569 00	$960 270 24
	Ia0 YELL 03	Park Planning	76	$345,961 87	$1,352,837 49
	Ia0-YELL 04	Winter Habitat	76	$20,273.39	$20 273 39
	Ia0 YELL 05	Wildland Fire	00	$0 00	$4,339,337 49
	Ia0-YELL-06	Native Species of Special Co	83	$294 810 21	$1,039,479 38
	Ia1a YELL	Disturbed Lands	99	$44 984 37	$282,781 15
	Ia1b YELL	Exotic Plant Species	76	$286 118 25	$386,993 02
	Ia2a YELL	T & E Species Improved	41	$279 062 76	$279,062 76
	Ia2b-YELL	T & E Species Stable	13	$566,584 79	$596,596 71
	Ia3-YELL	Air Quality	56	$18,728 96	$51,767.37
	Ia4-YELL	Water Quality	15	$15,640 08	$94,978.39
	Ia5-YELL	Historic Structures	09	$44,126 88	$2,608,073 04
	Ia6-YELL	Museum Collections	21	$34,070 98	$263,739.19
	Ia8 YELL	Archeological Sites	18	$74,174.57	$118,134.62
				$5,602,898.68	$4,682,126.24
Ib					
	Ib2a-YELL	Archeological Baseline	99	$64,969.36	$94,963.11
	Ib2b-YELL	Cultural Landscape Baseline	38	$18,708 49	$18 708 49
	Ib2c-YELL	Historic Structures Baseline	09	$44,126 88	$44,126.88
	Ib2d-YELL	Cataloging Museum Objects	59	$108,268.99	$148,657.32
	Ib2e-YELL	Ethnographic Resources Ba	62	$61,368.13	$91,251 86
	Ib2f-YELL	Historical Research Baseline	66	$15,342.04	$30,123 74
	Ib3 YELL	Vital Signs	78	$224,246 69	$235,129 66
				$537,030 58	$662,961.06
IIa					
	IIa0-YELL-01	Visitor Satisfaction with Visit Picnic Areas, Exhibits, and V	00	$0 00	$0 00
	IIa0-YELL-02	Visitor Satisfaction with Assi Park Map or Brochure, and	00	$0 00	$0 00
	IIa0-YELL-03	Visitor Satisfaction with Lear Sightseeing, and Outdoor R	00	$0 00	$0 00
	IIa1-YELL	Visitor Satisfaction	96	$10,242,294.20	$13,873,952 88
	IIa2-YELL	Visitor Safety	29	$7,807,348 95	$13,318,632.49
				$18,049,643 16	$27,192,585.36
IIb					
	IIb0-YELL 01	Education Programs	29	$117,215 13	$117,215.13
	IIb1-YELL	Visitor Understanding	0	$541,384.14	$1,659,445.11
				$541,384.14	$1,510,625.24
IIIa					
	IIIaX-YELL	Park Partnerships	95	$215,450 23	$215,450.23
				$215,450 23	$215,450.23
			8	$25,063,621.92	$44,940,236.27

ds included in IIa1

Yellowstone National Park
FY-2001 GPRA Performance Report

Mission Goal	Goal #	Description	Construction Goal amounts w/o PMA	Construction PMA Costs	GPRA Fund Categories									
					Construction Total	Donations	Fee Program	ONPS Other	Other Sources	Non-Base Fund Subtotal	ONPS Base direct costs	ONPS Base PMA Distribution	ONPS Base Totals	Grand Total
Parkwide Management and Administrative (PMA) contributing to all goals			$483,121 15							$0 00	$4 498 528 98			$0 00
Ia														
	Ia0 YELL 01	Natural Resources Fauna		$0 00	$0 00	$12 405 18	$18,240 00	$34,817 38		$65 462 56	$2 160 247 41	$472 545 18	$2 632 792 59	$2 698 255 15
	Ia0 YELL 02	Geothermal Features		$0 00	$0 00		14701 24			$14 701 24	$775 854 12	$169,714 88	$945,569 00	$960 270 24
	Ia0 YELL 03	Park Planning	$784 744 05	$130,277 00	$915,021 05	$1,576 52	$10,278 06	$80,000 00		$1,006,875 63	$283,867 11	$62,094 76	$345,961 87	$1,352,837 49
	Ia0 YELL 04	Winter Habitat		$0 00	$0 00					$0 00	$16,634 63	$3,638 76	$20,273 39	$20 273 39
	Ia0 YELL 05	Wildland Fire		$0 00	$0 00				$4,339,337 49	$4,339,337 49	$0 00	$0 00	$0 00	$4,339,337 49
	Ia0 YELL 06	Native Species of Special Concern	$12,352 94	$2,050 74	$14,403 68		$65,358 99	$664,906 50		$744,669 17	$241 896 38	$52,913 83	$294 810 21	$1,039,479 38
	Ia1a YELL	Disturbed Lands		$0 00	$0 00	$48 457 34	$129,339 74	$59,999 70		$237,796 78	$36,910 38	$8,073 99	$44 984 37	$282,781 15
	Ia1b YELL	Exotic Plant Species		$0 00	$0 00	$98 035 15	$2,839 62			$100,874 77	$234,764 49	$51 353 76	$286 118 25	$386 993 02
	Ia2a-YELL	T & E Species Improved		$0 00	$0 00					$0 00	$228,975 35	$50,087 41	$279,062.76	$279,062 76
	Ia2b YELL	T & E Species Stable		$0 00	$0 00	$22 796 92	$7,215 00			$30 011 92	$464,891 66	$101,693 13	$566,584 79	$596,596 71
	Ia3-YELL	Air Quality		$0 00	$0 00		$21,543 36	$11,495 05		$33,038 41	$15,367 40	$3,361 56	$18,728 96	$51,767 37
	Ia4-YELL	Water Quality	$1,317 08	$218 65	$1,535 73		$10 000 00	$67,802 58		$79 338 31	$12,832 93	$2,807 15	$15,640 08	$94,978 39
	Ia5 YELL	Historic Structures	$521,052 69	$86,501 04	$607,553 73		$204,515 99	$296,709 23	$1,455,167 21	$2,563 946 16	$36,206 79	$7,920 09	$44 126 88	$2,608,073 04
	Ia6-YELL	Museum Collections	$38,575 00	$6,403 92	$44,978 92		$85,484 44	$99,204 85		$229,668 21	$27,955 77	$6,115 21	$34 070 98	$263,739 19
	Ia8-YELL	Archeological Sites		$0 00	$0 00	$220 05	$2,280 00	$41,460 00		$43,960 05	$60,861 39	$13,313 18	$74 174 57	$118,134 62
		Mission Goal Subtotals =>	$1,358,041.76	$225,451.34	$1,583,493 10	$183 491 16	$571,796 44	$1,356,395 29	$5,794,504 70	$9,489,680 69			$5,602,898 68	$4,682,126 24
Ib														
	Ib2a-YELL	Archeological Baseline		$0 00	$0 00			$29,993 75		$29,993 75	$53,308 37	$11,660 99	$64,969.36	$94,963 11
	Ib2b-YELL	Cultural Landscape Baseline		$0 00	$0 00					$0 00	$15,350 61	$3,357 88	$18,708 49	$18,708 49
	Ib2c YELL	Historic Structures Baseline		$0 00	$0 00					$0 00	$36,206 79	$7,920 09	$44,126 88	$44,126 88
	Ib2d-YELL	Cataloging Museum Objects		$0 00	$0 00			$40,388 33		$40,388 33	$88,836 40	$19,432 59	$108,268 99	$148,657.32
	Ib2e-YELL	Ethnographic Resources Baseline		$0 00	$0 00			$29,883.73		$29,883 73	$50,353 51	$11,014 62	$61,368 13	$91,251 86
	Ib2l-YELL	Historical Research Baseline		$0 00	$0 00		$14,781 70			$14,781 70	$12,588 38	$2,753 66	$15,342 04	$30,123 74
	Ib3-YELL	Vital Signs		$0 00	$0 00			$10,882 97		$10,882 97	$183,997 91	$40,248 78	$224,246 69	$235,129 66
		Mission Goal Subtotals =>	$0 00	$0.00	$0 00	$0 00	$14,781.70	$111,148 78	$0.00	$125,930 48			$537,030 58	$662,961.06
IIa														
	IIa0-YELL-01	Visitor Satisfaction with Visitor Centers, Restrooms, Campgrounds and/or Picnic Areas, Exhibits, and Walkways, Trails, and Roads		$0 00	$0 00					$0 00	$0 00	$0 00	$0 00	$0 00
	IIa0 YELL-02	Visitor Satisfaction with Assistance from Park Employees, Ranger Programs, Park Map or Brochure, and Commercial Services in the Park		$0 00	$0 00					$0 00	$0 00	$0 00	$0 00	$0 00
	IIa0 YELL-03	Visitor Satisfaction with Learning About Nature, History or Culture, Sightseeing, and Outdoor Recreation		$0 00	$0 00					$0 00	$0 00	$0 00	$0 00	$0 00
	IIa1-YELL	Visitor Satisfaction	$1,551,047.76	$257,492 67	$1,808,540 43	$3,117 25	$711,642 79	$84,326 70	$1,024,031 50	$3,631,658 67	$8,403,962 24	$1,838,331 96	$10,242,294.20	$13,873,952 88
	IIa2-YELL	Visitor Safety	$1,067 00	$177 13	$1,244 13		$2,557,023 88	$1,494,748 33	$1,458,267 19	$5,511,283 53	$6,406,051 66	$1,401,297 29	$7,807,348 95	$13,318,632 49
		Mission Goal Subtotals =>	$1,552,114.76	$257,669.81	$1,809,784 57	$3,117 25	$3,268,666 67	$1,579,075 03	$2,482,298 69	$9,142,942 21			$18,049,643 16	$27,192,585.36
IIb														
	IIb0-YELL-01	Education Programs		$0 00	$0 00					$0 00	$96,176 84	$21,038 29	$117,215 13	$117 215 13
	IIb1-YELL	Visitor Understanding		$0 00	$0 00		$969,241.10	$148,819 87		$1,118 060 97	$444,214 14	$97,170 00	$541,384 14	$1,659,445.11
		Mission Goal Subtotals =>	$0 00	$0 00	$0 00	$0 00	$969,241.10	$148,819 87	$0 00	$1,118,060 97			$541,384 14	$1,510,625 24
IIIa														
	IIIaX-YELL	Park Partnerships		$0 00	$0 00					$0 00	$176,780 28	$38,669 95	$215,450 23	$215,450 23
		Mission Goal Subtotals =>	$0 00	$0 00	$0 00	$0 00	$0.00	$0.00	$0 00	$0 00			$215,450 23	$215,450 23
		TOTALS =>	$3,393,277.67	$483,121.15	$3,393,277 67	$186 608 41	$4,824,485 91	$3 195,438 97	$8,276,803 39	$19,876,614 35	$25,063,621 92	$4,498,528 98	$25,063,621 92	$44,940,236.27

* Construction PMA includes Equipment Replacement (funds 05 and 09); other LCPII (fund 09) included in Ia5 and IIa2. Housing Rehab/Replacement funds included in IIa1

**Fee Program Figures include $952,666 09 for Fund 36 school payments and $1,624,312 20 Cost of Collection

***FIREPRO (Fund 85), Quarters Expenses (Fund 34), FLHP (Fund 44), Concessions Fee Projects (Fund 99).

Yellowstone National Park
FTE by Longterm GPRA Goal for FY-2001 Report

al gory umber	GPRA Goal I D	Description	FTE by Goal	FTE as % of total excluding PMA	Total FTE with Pro-rated share of PMA		Goal Category Subtotals as % of Total
	Ia0-YELL-01	Natural Resources Fauna	22.73	4.46%	25.3		
	Ia0-YELL-02	Geothermal Features	8.09	1.59%	9.0		
	Ia0-YELL-03	Park Planning	11.40	2.24%	12.7		
	Ia0-YELL-04	Winter Habitat	0.17	0.03%	0.2		
	Ia0-YELL-05	Wildland Fire	36.55	7.18%	40.7		
	Ia0-YELL-06	Native Species of Special Concern	8.76	1.72%	9.7		
	Ia1a-YELL	Disturbed Lands	2.38	0.47%	2.7		
	Ia1b-YELL	Exotic Plant Species	3.26	0.64%	3.6		
	Ia2a-YELL	T & E Species Improved	2.35	0.46%	2.6		
	Ia2b-YELL	T & E Species Stable	5.03	0.99%	5.6		
	Ia3-YELL	Air Quality	0.44	0.09%	0.5		
	Ia4-YELL	Water Quality	0.80	0.16%	0.9		
	Ia5-YELL	Historic Structures	21.97	4.31%	24.4		
	Ia6-YELL	Museum Collections	2.22	0.44%	2.5		
	Ia8-YELL	Archeological Sites	1.00	0.20%	1.1		
	Ib2a-YELL	Archeological Baseline	0.80	0.16%	0.9		
	Ib2b-YELL	Cultural Landscapes Baseline	0.16	0.03%	0.2		
	Ib2c-YELL	Historic Structures Baseline	0.37	0.07%	0.4		
	Ib2d-YELL	Cataloging Museum Objects	1.25	0.25%	1.4		
	Ib2e-YELL	Ethnographic Resources Baseline	0.77	0.15%	0.9		
	Ib2f-YELL	Historical Research Baseline	0.25	0.05%	0.3		
	Ib3-YELL	Vital Signs	1.98	0.39%	2.2		
		FTE by Goal Category =	***132.71***	**Adjusted Goal Category Subtotal =**		**147.65**	**26.07%**
	IIa0-YELL-01	Visitor Satisfaction with Visitor Centers, Restrooms, Campgrounds and/or Picnic Areas, Exhibits, and Walkways, Trails, and Roads					
	IIa0-YELL-02	Visitor Satisfaction with Assistance from Park Employees, Ranger Programs, Park Map or Brochure, and Commercial Services in the Park.					
	IIa0-YELL-03	Visitor Satisfaction with Learning About Nature, History or Culture, Sightseeing, and Outdoor Recreation					
	IIa1-YELL	Visitor Satisfaction	160.52	31.53%	178.6		
	IIa2-YELL	Visitor Safety	191.50	37.61%	213.1		
	IIb0-YELL-01	Education Programs	2.29	0.45%	2.5		
	IIb1-YELL	Visitor Understanding	21.33	4.19%	23.7		
		FTE by Goal Category =	***375.64***	**Adjusted Goal Category Subtotal =**		**417.93**	**73.78%**
	IIIaX-YELL	Park Partnerships	0.80	0.16%	0.9		
		FTE by Goal Category =	***0.80***	**Adjusted Goal Category Subtotal =**		**0.89**	**0.16%**
		Parkwide Management and Administration	57.32			N/A	N/A
		FTE by Goal Category =	***57.32***				
			566.47	100.00%	**Total FTE**	**566.47**	**100.00%**

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** ia0

Park/Program Abbreviation: YELL Organization Code: 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.

Baseline: 1999 populations

Performance Indicator: Population Status

Desired Condition: Self-sustaining

Unit of Measure: Number of species of free-ranging wildlife, native fish, and birds

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PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL-01

Park/Program/Office Long-term Goal: By September 30, 2005, 356 (95%) of the 375 self-sustaining and free-ranging wildlife, native fish, and birds identified in Yellowstone National Park as of 1999 are preserved and maintained.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	375	
Status in Base Yea	356	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia0	Ia0	Ia0	Ia0	Ia0
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	356	356	356	356	356
	Actual:	356	0	0	0	0
Employee FTE	Projected:	63.3	63.3	63	63	63
	Actual:	25.3	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	4331	5867	5867	5867	5867
	Actual:	2633	0	0	0	0
ONPS Other	Projected:	275	114	114	114	114
	Actual:	35	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	75	0	0	0	0
	Actual:	18	0	0	0	0
Donations	Projected:	15	15	15	15	15
	Actual:	12	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$4,696	$5,996	$5,996	$5,996	$5,996
	Actual:	$2,698	$	$	$	$

Author Comments

Servicewide Goal Number Ia0

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph
Ia0	YELL-01	190	A Performance Target or FTE or Funding was identified for a fiscal year but no actuals were reported in one or more of these categories. NPS performance reports to OMB and Congress require that the agency compare projected and actual performance and provide an explaination when projected performance is not met. If goal is abandoned then state that in the comments. If access is locked, please contact your regional GPRA coordinator to update actual performance.When problem corrected, please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ia0	2002	<None>	<None Selected>		
Ia0	2003	<None>	<None Selected>		
Ia0	2004	<None>	<None Selected>		
Ia0	2005	<None>	<None Selected>		
Ia0	2001	Met	<None Selected>	We have no evidence of species decline in 2001. Monitored populations of bison, bighorn sheep, mule deer, birds, and elk were within the range of natural variation. A research project was initiated to determine the contribution of changing climate, reduction in the beaver population, and elk herbivory to willow decline on Yellowstone's northern range. The population of Yellowstone cutthroat trout is down slightly from previous years, but still within the range of natural variation. The number of young fish appears to be on the rise after four years of declining numbers. By October 12, over 13,000 lake trout were removed by gillnetting, almost 1000 more than in the entire 2001 season. Total number of lake trout removed from Yellowstone Lake since 1995 is now over 41,000. The record of Decision for a Joint Bison Management Plan was signed on December 20, 2000. The plan outlines steps the	

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	**Year**	**Status**	**Reason**	**Performance Comments**	**Problem Comments**
				NPS will take jointly with the State of Montana, the U.S. Forest Service, and APHIS, to ensure the survival of Yellowstone's free-ranging bison while reducing the risk of transmitting brucellosis to cattle. Studies are underway to determine the effect that both non-native whirling disease and New Zealand mudsnails will have on native trout.	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** Ia0

Park/Program Abbreviation: YELL Organization Code: 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.

Baseline: indicator geothermal features

Performance Indicator: condition of indicators

Desired Condition: good Unit of Measure: number of indicator features in good condition

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PARK/PROGRAM DETAILS Park/Program Goal Identification Number YELL-02

Park/Program/Office Long-term Goal: By September 30, 2005, 72 (90%) of the 80 indicator geothermal features identified in Yellowstone National Park as of 1999 are in good condition.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	80	
Status in Base Yea	72	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia0	Ia0	Ia0	Ia0	Ia0
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	90	72	72	72	72
	Actual:	72	0	0	0	0
Employee FTE	Projected:	11.8	11.8	11.8	11.8	11.8
	Actual:	9	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	797	812	812	812	812
	Actual:	946	0	0	0	0
ONPS Other	Projected:	6	20	20	20	20
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	15	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$803	$832	$832	$832	$832
	Actual:	$961	$	$	$	$

Author Comments

Servicewide Goal Number Ia0

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph
Ia0	YELL-02	190	A Performance Target or FTE or Funding was identified for a fiscal year but no actuals were reported in one or more of these categories. NPS performance reports to OMB and Congress require that the agency compare projected and actual performance and provide an explaination when projected performance is not met. If goal is abandoned then state that in the comments. If access is locked, please contact your regional GPRA coordinator to update actual performance.When problem corrected, please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ia0	2002	<None>	<None Selected>		
Ia0	2003	<None>	<None Selected>		
Ia0	2004	<None>	<None Selected>		
Ia0	2005	<None>	<None Selected>		
Ia0	2001	Met	<None Selected>	Park volunteer Ralph Taylor monitored and cleaned over 100 features in the indictor areas during the summer. He focused on those features close to boardwalks because (1) they are the features most likely to be vandalized, and (2) they are the safest features to monitor and clean due to thin thermal crusts away from boardwalks. Mr. Taylor logged 325 hours monitoring and cleaning these thermal features in FY2001. During the course of the summer, he cleaned 590 rocks and 317 coins out of these pools, all of which were thrown into the pools by park visitors. At West Thumb Geyser Basin there was an enormous coin problem at an unnamed spring near Fishing Cone. The spring collected a hundred or more coins per week as recently as June 2001, and had done so all last summer. The Grant Interpretation staff, [illegible] Grigg, and Ralph Taylor all cleaned this pool regularly.	

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
				but the coins kept appearing. This summer a sign reading "Throwing objects into pools is ILLEGAL. If you see someone throwing objects into a pool, please report it to a Ranger." The sign was posted both at the entry to the basin and at the target pool. The coin tossing stopped immediately, and only two or three coins were recovered for the rest of the season. The upper geyser basin does not have a single point where such a sign is warranted, but the success of this sign should not be ignored.	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** Ia0

Park/Program Abbreviation: YELL Organization Code: 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context

Baseline: Yearly Project Proposals

Performance Indicator: planning & compliance projects

Desired Condition: meet compliance requirements Unit of Measure: planning projects

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PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL-03

Park/Program/Office Long-term Goal: By September 30, 2005, 100% of Yellowstone National Park's completed planning and compliance projects meet compliance requirements in order to most efficiently support the preservation of resources.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	100	
Status in Base Yea	100	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia0	Ia0	Ia0	Ia0	Ia0
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	100	100	100	100	100
	Actual:	100	0	0	0	0
Employee FTE	Projected:	14.7	14.7	14.7	14.7	14.7
	Actual:	12.7	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	480	500	500	500	500
	Actual:	346	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	80	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	779	827	1191	0	0
	Actual:	915	0	0	0	0
Fee Programs	Projected:	30	0	0	0	0
	Actual:	10	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	2	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$1,289	$1,327	$1,691	$500	$500
	Actual:	$1,353	$	$	$	$

Author Comments

Servicewide Goal Number Ia0

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph
Ia0	YELL-03	190	A Performance Target or FTE or Funding was identified for a fiscal year but no actuals were reported in one or more of these categories. NPS performance reports to OMB and Congress require that the agency compare projected and actual performance and provide an explaination when projected performance is not met. If goal is abandoned then state that in the comments If access is locked, please contact your regional GPRA coordinator to update actual performance.When problem corrected, please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ia0	2002	<None>	<None Selected>		
Ia0	2003	<None>	<None Selected>		
Ia0	2004	<None>	<None Selected>		
Ia0	2005	<None>	<None Selected>		
Ia0	2001	Met	<None Selected>	Although the goal was achieved, a major change in priorities occurred part way through the year with the settlement of a lawsuit on the winter use issue in Yellowstone and Grand Teton and the decision to prepare a new winter use plan and Supplemental EIS That project was not funded in FY2001, and resources were diverted from other high priority projects to meet this new goal. As a result, several construction projects' compliance suffered because of the shift in emphasis Several are behind schedule, and contract awards may be delayed in 2002.	

Number of Goals Shown For Park. 5

Number of Goals Shown For Region: 5

RUNDATE: 02-NOV-2001
RUNTIME: 09:36 AM EST

End of Year Report

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** Ia0

Park/Program Abbreviation: YELL Organization Code: 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.

Baseline: 124,000 acres winter habitat outside park

Performance Indicator: acres of winter habitat

Desired Condition: increase Unit of Measure: acres

PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL-04

Park/Program/Office Long-term Goal: By September 30, 2005, winter habitat outside the Yellowstone National Park boundary for use by Yellowstone wildlife is increased from 124,000 acres in FY1997 to 132,000 acres.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	124000	
Status in Base Yea	124000	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia0 FY 2001	Ia0 FY 2002	Ia0 FY 2003	Ia0 FY 2004	Ia0 FY 2005
Performance	Projected:	125000	127000	129000	131000	132000
	Actual:	132000	0	0	0	0
Employee FTE	Projected:	.3	.3	.3	.3	.3
	Actual:	.2	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	19	15	15	15	15
	Actual:	20	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	40	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$59	$15	$15	$15	$15
	Actual:	$20	$	$	$	$

Author Comments

Servicewide Goal Number: la0

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Projected	Actual	Year	Status	Reason
Ia0	127000	0	2002	<None>	<None Selected>

Performance Comments:

Problem Comments:

Goal	Projected	Actual	Year	Status	Reason
Ia0	129000	0	2003	<None>	<None Selected>

Performance Comments:

Problem Comments:

Goal	Projected	Actual	Year	Status	Reason
Ia0	131000	0	2004	<None>	<None Selected>

Performance Comments:

Problem Comments:

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	**Projected**	**Actual**	**Year**	**Status**	**Reason**
Ia0	132000	0	2005	<None>	<None Selected>

Performance Comments:

Problem Comments:

Goal	**Projected**	**Actual**	**Year**	**Status**	**Reason**
Ia0	125000	131000	2001	Met	Other

Performance Comments: As part of previous wildlife winter range purchased by the federal government in FY99 in the Gardiner Basin area north of the park, the federal government also holds a first refusal option to purchase additional private lands north of the park in this area.
As part of mitigation for upcoming construction activities for the Beartooth Highway north-east of the park, Federal Highways Administration will be completing purchase of willow wetlands between the towns of Silvergate and Cooke City adjacent to the north-east entrance of the park. The FHA plans to transfer these lands to Park County, MT with conservation easements for wildlife habitat. Although the total acreage to be purchased is not available at this time, these lands will contribute to meeting the park's GPRA goal.

Problem Comments: Problem Comments

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: Ia0

Park/Program Abbreviation: YELL

Organization Code: 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.

Baseline: Percentage of wildland fires declared PNF & allowed to burn

Performance Indicator: wildland fires

Desired Condition: declared PNF and allowed to burn

Unit of Measure: percent

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL-05

Park/Program/Office Long-term Goal: By September 30, 2005, 93% of all wildland fires in Yellowstone National Park are declared prescribed natural fires and allowed to burn to support natural processes and natural regulation of the ecosystem.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	91	
Status in Base Yea	91	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia0	Ia0	Ia0	Ia0	Ia0
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	91	91	92	92	93
	Actual:	39	0	0	0	0
Employee FTE	Projected:	15.8	15.8	15.8	15.8	15.8
	Actual:	40.7	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	850	850	850	850	850
	Actual:	4339	0	0	0	0
Totals:	Projected:	$850	$850	$850	$850	$850
	Actual:	$4,339	$	$	$	$

uthor Comments

Servicewide Goal Number Ia0

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph
Ia0	YELL-05	190	A Performance Target or FTE or Funding was identified for a fiscal year but no actuals were reported in one or more of these categories. NPS performance reports to OMB and Congress require that the agency compare projected and actual performance and provide an explaination when projected performance is not met. If goal is abandoned then state that in the comments. If access is locked, please contact your regional GPRA coordinator to update actual performance.When problem corrected, please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ia0	2002	<None>	<None Selected>		
Ia0	2003	<None>	<None Selected>		
Ia0	2004	<None>	<None Selected>		
Ia0	2005	<None>	<None Selected>		
Ia0	2001	Did Not Meet	Other	- Terminology has been changed from prescribed natural fire to wildland fire use (full terminology is wildland fire use for resource benefits or WFURB). - There were a total of 36 wildland fires reported for the period through 9/30/01. - 28 of these fires were lightning caused fires. - 8 of these fires were human-caused fires. - 14 of the 28 lightning caused fires were allowed to burn as WFU fires: 14/28 - 50% - 14/36 - 39% The goal of 91 percent of all wildland fires being declared PNF's or WFU's was not attained for this reporting period. There are several factors to consider in evaluating this goal	This goal is not a realistic goal because of all the factors that are involved in declaring wildland fires as natural fires (PNF's or WFU's). The park fire management operation does not have control over the ignition source that starts fires, e.g. Humans or lightning. Per the wildland fire management plan, all human caused fires must be suppressed, so human caused fires should not factor into the number or percent of fires declared or allowed to burn as natural fires. Secondly, each lightning caused fire must be evaluated and must meet many criteria (outlined in the fire management plan) before being declared a natural fire and allowed to burn unhindered. If suppression action [illegible] due to the extended drought and heightened fire danger conditions and fire behavior conditions, 11 of the [illegible] lightning caused fires did not meet the required criteria [illegible]

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
					were declared suppression fires. - A better evaluation of attaining the 91% goal is that all 14 lightning caused fires that met the required criteria were declared natural fires and allowed to burn unhindered. This is 14/14 - 100% attainment of this goal. This goal will be revised accordingly.

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Goal Detail Report

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: Ia0

Park/Program Abbreviation: YELL

Organization Code: 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal : Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.

Baseline: species of special concern in 1999

Performance Indicator: status of species

Desired Condition: stable or improved condition

Unit of Measure: species numbers

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL-06

Park/Program/Office Long-term Goal: By September 30, 2005, four of Yellowstone National Park's native species of special concern (trumpeter swan, white pelican, pronghorn antelope, and Yellowstone sand verbena), as of 1999, have an improved or stable status.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	4	
Status in Base Yea	4	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia0 FY 2001	Ia0 FY 2002	Ia0 FY 2003	Ia0 FY 2004	Ia0 FY 2005
Performance	Projected:	4	4	4	4	4
	Actual:	4	0	0	0	0
Employee FTE	Projected:	1.1	1.1	1.1	1.1	1.1
	Actual:	9.7	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	5	5	5	5	5
	Actual:	295	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	665	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	14	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	65	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$5	$5	$5	$5	$5
	Actual:	$1,039	$	$	$	$

Author Comments

Servicewide Goal Number 1a0

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ia0	2002	<None>	<None Selected>		
Ia0	2003	<None>	<None Selected>		
Ia0	2004	<None>	<None Selected>		
Ia0	2005	<None>	<None Selected>		
Ia0	2001	Met	<None Selected>	The spring pronghorn count was 206 animals, up one animal from 2000. Two important research projects on issues that appear to be limiting pronghorn population were completed in 2001: fawn mortality and habitat preferences. The results suggest that fawn mortality exceeds 85% per year and that the population is comprised of two sub groups that use different habitat bases. Two swans were lost from the population in 2001: the pen from the 7 mile bridge pair and the cob from the Trumpeter Lake pair. This reduces the swan population to 17-18, a historically low number. It is unclear at this time, however, whether this number is within natural variation or represents an irreversible population decline. Yellowstone staff worked with staff from the U.S. Fish and Wildlife Service and the Trumpeter Swan working group to determine best long term	

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
				management strategies for trumpeter swans in Yellowstone National Park. Yellowstone Lake experienced no habitat degradation for Yellowstone Sand verbena in 2001, thus the long-term outlook for Yellowstone Sand Verbena appears to be stable. However, we did experience some die-back of existing plants due to the drought conditions in 2001. This appears to be within the range of naturally occurring population variability. In 2000, 584 pelicans fledged from 458 active nests on the Molly Islands, and we were meeting our goal of maintaining populations that are likely to persist.	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: Ia1A

Park/Program Abbreviation: YELL

Organization Code: 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30, 2005, 10.1% of targeted parklands, disturbed by development or agriculture, as of 1999 (22,500 of 222,300 acres), are restored

Baseline: Total number of acres of land directly disturbed by development or agriculture targeted for restoration by the park in a GMP, RMP, or other appropriate planning or compliance documents as of September 30, 1999

Performance Indicator: Disturbed Lands (Identified)

Desired Condition: Restored/Mitigated

Unit of Measure: Acres

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, 30.9 (69%) of 44.7 acres of Yellowstone National Park's targeted lands disturbed by prior development or agricultural uses, as of FY1999, are restored.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	44.7	
Status in Base Yea	0	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia1A FY 2001	Ia1A FY 2002	Ia1A FY 2003	Ia1A FY 2004	Ia1A FY 2005
Performance	Projected:	3.5	6.5	9.5	11.5	30.9
	Actual:	13.8	0	0	0	0
Employee FTE	Projected:	13.6	13.6	13.6	13.6	13.6
	Actual:	2.7	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	134	165	165	165	165
	Actual:	45	0	0	0	0
ONPS Other	Projected:	0	71	71	71	71
	Actual:	60	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	20	0	0	0	0
	Actual:	129	0	0	0	0
Donations	Projected:	35	35	35	35	35
	Actual:	48	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$189	$271	$271	$271	$271
	Actual:	$282	$	$	$	$

Author Comments

Servicewide Goal Number Ia1A

The Park goal text has both a percentage and the number of acres to be restored This appears to be in line with the technical guidance. The annual targets are in cumlative acres. The decimals are for portions of an acre (ie. 6.5 acres)

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph
Ia1A	YELL	103	Goal text and/or annual targets should have real numbers - percentages cannot roll up servicewide. See Technical Guidance and/or Reviewer's Comments for how to use numbers and percentages in goal text.
	YELL	108	Missing, incomplete and/or contradictory information (such as Performance, FTE, and/or Dollars not projected for all Fiscal Years)
	YELL	190	A Performance Target or FTE or Funding was identified for a fiscal year but no actuals were reported in one or more of these categories. NPS performance reports to OMB and Congress require that the agency compare projected and actual performance and provide an explaination when projected performance is not met. If goal is abandoned then state that in the comments. If access is locked, please contact your regional GPRA coordinator to update actual performance.When problem corrected, please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IalA	2002	<None>	<None Selected>		
IalA	2003	<None>	<None Selected>		
IalA	2004	<None>	<None Selected>		
IalA	2005	<None>	<None Selected>		
IalA	2001	Met	<None Selected>	The Lone Star Pit (2 acres) and the Natuarl Bridge Quarry/Bridge Bay Pit (8 acres) were reclaimed in 2001. Designs for reclamation of the abandoned Sedge Cree Pit (1.25 acres) were also completed. Reclamation will be completed in association with the reconstruction of the Grand Loop Road in 2006-2007. This work was funded by a Wyoming Office of Surface Mines grant to the Wyoming Department of Environmental Quality Abandoned Mine Lands Division, who worked cooperatively with the park to accomplish reclamation. These pits were abandoned between the mid-1950s and the early 1970s and posed threats to public safety, had little revegetation, and were eroding. Approximately 1.5 acres of the abandoned Turbid Lake Road was reclaimed in 2001 using Fee Demo funding. Approximately 575 square meters of disturbed wetland were restored in 2001 as	

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
				compensation for wetlands impacts associated with road reconstruction. App. 1 acre of disturbed road camp in the West Thumb area was restored; one-half of this project included restored wetlands. A 100 x 50 foot (0.1 acres) concrete boat ramp, an 800 linear foot-long (0.3 acres) sea wall and sidewalk, and an 800 x 100 (1.8 acres) asphalt parking lot were removed from the Grant Lagoon area in FY2001.	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: Ia1B

Park/Program Abbreviation: YELL
Organization Code: 1570
Region: IM
Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30, 2005: Exotic vegetation on 6.3% of targeted acres of parkland (167,500 of 2,656,700 acres) is contained.

Baseline: Total number of acres directly impacted by invasive vegetation that pose the greatest threat to native species and natural processes and for which effective and feasible treatments are available and targeted for restoration by the park in a GMP, RMP, or o

Performance Indicator: Land Impacted (Targeted)

Desired Condition: Contained
Unit of Measure: Acres

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, invasive exotic vegetation species on 22 (2.6%) of 822 targeted acres of Yellowstone National Park lands, as of FY1999, are eradicated or contained.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	822	
Status in Base Yea	0	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia1B FY 2001	Ia1B FY 2002	Ia1B FY 2003	Ia1B FY 2004	Ia1B FY 2005
Performance	Projected:	7	12	16	19	22
	Actual:	7	0	0	0	0
Employee FTE	Projected:	11.3	11.3	11.3	11.3	11.3
	Actual:	3.6	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	263	269	269	269	269
	Actual:	286	0	0	0	0
ONPS Other	Projected:	200	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	3	0	0	0	0
Donations	Projected:	100	100	100	100	100
	Actual:	98	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$563	$369	$369	$369	$369
	Actual:	$387	$	$	$	$

Author Comments

Servicewide Goal Number Ia1B

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph
Ia1B	YELL	190	A Performance Target or FTE or Funding was identified for a fiscal year but no actuals were reported in one or more of these categories. NPS performance reports to OMB and Congress require that the agency compare projected and actual performance and provide an explaination when projected performance is not met. If goal is abandoned then state that in the comments. If access is locked, please contact your regional GPRA coordinator to update actual performance.When problem corrected, please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IalB	2002	<None>	<None Selected>		
IalB	2003	<None>	<None Selected>		
IalB	2004	<None>	<None Selected>		
IalB	2005	<None>	<None Selected>		
IalB	2001	Met	<None Selected>	The goal of 7 acres stated in PMDS is in error. Our plan called for 3 acres as the FY01 goal. In FY 2001, we eradicated 3 acres of spotted knapweed. In FY 2002, we will target 4 acres for eradication. In FY 2003, 4 acres. In FY 2004 and 2005, 3 acres each year The remaining 662 acres will be treated annually; however, due to the long seed life of herbaceous exotic plants in the northern Rocky Mountains (e.g seed life up to 30 years in some species), we must continue to monitor most established patches for more than 5 years to ensure that they are eradicated or contained. In addition to weed control work accomplished in Yellowstone, park staff assisted Hagerman Fossil Beds staff with exotic species identification and control and participated in the Henry's Fork, Upper Madison, and Snake River Weed Management areas	

RUNDATE. 02-NOV-2001
RUNTIME: 09:54 AM EST

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	**Year**	**Status**	**Reason**	**Performance Comments**	**Problem Comments**
Number of Goals Shown For Park:			5		
Number of Goals Shown For Region:			5		
Number of Goals Shown For Report:			5		

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** Ia2A

Park/Program Abbreviation: YELL Organization Code: 1570

Region IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal. : By September 30, 2005, 19% of the 1999 identified park populations (84 of 442) of federally listed threatened and endangered species with critical habitat on park lands or requiring NPS recovery actions have an improved status, and an additional 18.1% (80 of 442) have stable populations.

Baseline: Total number of federally listed T&E species known to occur currently or historically within the park that meet RPT/CHD criteria as of September 30, 1999 (total must equal total of species in categories A through E)

Performance Indicator: Status of Species

Desired Condition: Improving Unit of Measure: Species (Each)

PARK/PROGRAM DETAILS Park/Program Goal Identification Number YELL

Park/Program/Office Long-term Goal: By September 30, 2005, one (the gray wolf) (33%) of Yellowstone National Park's three identified populations of federally listed threatened and endangered species with critical habitat on park lands and/or requiring NPS recovery actions, as of 1999, has an improved status.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	3	
Status in Base Yea	1	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

Servicewide Goal Number:		Ia2A FY 2001	Ia2A FY 2002	Ia2A FY 2003	Ia2A FY 2004	Ia2A FY 2005
Performance	Projected:	1	1	1	1	1
	Actual:	1	0	0	0	0
Employee FTE	Projected:	4	4	4	4	4
	Actual:	2.6	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	314	310	310	310	310
	Actual:	279	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	10	10	10	10	10
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$324	$320	$320	$320	$320
	Actual:	$279	$	$	$	$

Author Comments

Servicewide Goal Number: Ia2A

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ia2A	2002	<None>	<None Selected>		
Ia2A	2003	<None>	<None Selected>		
Ia2A	2004	<None>	<None Selected>		
Ia2A	2005	<None>	<None Selected>		
Ia2A	2001	Met	<None Selected>	The Yellowstone wolf population has grown steadily since reintroduction in 1995. Fourteen and 17 wolves were released in 1995 and 1996, respectively. That population grew to 86 wolves in 1997, 110 in 1998, approximately 160 to 170 in 1999, 115-120 in 2000, and 169 in 2001. This is one of the highest growth rates ever recorded for a wolf population. Population expansion by wolves was so great that only two re-introductions were necessary when originally three to five were planned. The Rocky Mountain Wolf Recovery has defined 10 breeding pairs for the Yellowstone area as a goal; 1999 marks the first time that goal has been achieved. In 2001, the U.S. Fish and Wildlife Service determined that the Rocky Mountain Gray Wolf was in the second year of a three-year countdown to de-listing because criteria were met in	

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
				the Yellowstone, Idaho, and Northern Continental Divide ecosystems..	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** Ia2B

Park/Program Abbreviation: YELL Organization Code: 1570

Region: IM

Year to Complete Goal: 2001

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, 19% of the 1999 identified park populations (84 of 442) of federally listed threatened and endangered species with critical habitat on park lands or requiring NPS recovery actions have an improved status, and an additional 18.1% (80 of 442) have stable populations

Baseline: Total number of federally listed T&E species known to occur currently or historically within the park that meet RPT/CHD criteria as of September 30, 1999 (total must equal total of species in categories A through E)

Performance Indicator: Status of Species

Desired Condition: Stable Unit of Measure: Species (Each)

PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, two (the grizzly bear and bald eagle) (66%) of Yellowstone National Park's three identified populations of federally listed threatened and endangered species with critical habitat on park lands and/or requiring NPS recovery actions, as of 1999, have a stable status

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	3	
Status in Base Yea	2	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia2B FY 2001	Ia2B FY 2002	Ia2B FY 2003	Ia2B FY 2004	Ia2B FY 2005
Performance	Projected:	2	2	2	2	2
	Actual:	2	0	0	0	0
Employee FTE	Projected:	7.6	7.6	7.6	7.6	7.6
	Actual:	5.6	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	517	529	529	529	529
	Actual:	567	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	7	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	23	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$517	$529	$529	$529	$529
	Actual:	$597	$	$	$	$

Author Comments

Servicewide Goal Number Ia2B

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Projected	Actual	Year	Status	Reason
Ia2B	2	0	2002	<None>	<None Selected>

Performance Comments:

Problem Comments:

Goal	Projected	Actual	Year	Status	Reason
Ia2B	2	0	2003	<None>	<None Selected>

Performance Comments:

Problem Comments:

Goal	Projected	Actual	Year	Status	Reason
Ia2B	2	0	2004	<None>	<None Selected>

Performance Comments:

Problem Comments:

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	**Projected**	**Actual**	**Year**	**Status**	**Reason**
Ia2B	2	0	2005	<None>	<None Selected>

Performance Comments:

Problem Comments:

Goal	**Projected**	**Actual**	**Year**	**Status**	**Reason**
Ia2B	2	2	2001	Met	<None Selected>

Performance Comments:

The grizzly bear population has been stable to increasing at the rate of 1 to 4 percent per year since 1986. Human-caused mortalities and habitat loss remain long-term concerns in managing grizzly bears. The population objectives outlined in the Grizzly Bear Recovery Plan have been met twice, in 1994 and again in 1998. From 1998-2000, all grizzly bear population recovery goals were met. As of October 12, 2001 we were on target to meet goals; however, mortality can still occur that will prevent us from reaching targets. To date, no human-caused mortalities have been recorded in Yellowstone National Park in 2001.

In 2001, 205 pelicans fledged from 264 active nests on the Molly Islands, and we were meeting our goal of maintaining populations that are likely to persist.

In 2001, 15 eaglets fledged from 31 active nests in the park, and we were meeting our goal of maintaining populations that are likely to persist.

Problem Comments:

Number of Goals Shown For Park:	5
Number of Goals Shown For Region:	5
Number of Goals Shown For Report:	5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: Ia3

Park/Program Abbreviation: YELL

Organization Code: 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30, 2005, Air quality in 70% of reporting park areas has remained stable or improved

Baseline: WASO Air Resources Division provides servicewide data.

Performance Indicator: Park air quality

Desired Condition: Improved or Unchanged

Unit of Measure: Percentage

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, air quality in Yellowstone National Park has remained stable or improved relative to FY1998 conditions.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	0	
Status in Base Yea	0	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia3	Ia3	Ia3	Ia3	Ia3
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Employee FTE	Projected:	.6	.6	.6	.6	.6
	Actual:	.5	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	32	26	26	26	26
	Actual:	19	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	11	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	150	0	0	0	0
	Actual:	22	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$182	$26	$26	$26	$26
	Actual:	$52	$	$	$	$

Author Comments

Servicewide Goal Number Ia3

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

ervicewide Goal No	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	**Year**	**Status**	**Reason**	**Performance Comments**	**Problem Comments**
Ia3	2001	Met	<None Selected>	Parkwide air quality monitoring indicates that air quality in Yellowstone Park remained stable. "Greening" efforts, such as use of gasohol, alternative fuel vehicles and environmentally friendly cleaning products should have lessened local emissions, although this was not detected in the monitoring efforts.	
Ia3	2002	<None>	<None Selected>		
Ia3	2003	<None>	<None Selected>		
Ia3	2004	<None>	<None Selected>		
Ia3	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION — **Servicewide Goal Number:** Ia4

Park/Program Abbreviation YELL
Organization Code 1570
Region IM
Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, 85% of Park units have unimpaired water quality

Baseline: 100% of all surface water bodies

Performance Indicator: Water Quality

Desired Condition: Unimpaired

Unit of Measure: Each park with qualifying waters

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, Yellowstone National Park has unimpaired water quality

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	1	
Status in Base Yea	1	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia4	Ia4	Ia4	Ia4	Ia4
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	1	1	1	1	1
	Actual:	0	0	0	0	0
Employee FTE	Projected:	.3	.3	.3	.3	.3
	Actual:	.9	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	38	31	31	31	31
	Actual:	16	0	0	0	0
ONPS Other	Projected:	0	16	16	16	16
	Actual:	68	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	5272	1889	2604	0	0
	Actual:	2	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	10	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$5,310	$1,936	$2,651	$47	$47
	Actual:	$96	$	$	$	$

Author Comments

Servicewide Goal Number Ia4

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph
Ia4	YELL	190	A Performance Target or FTE or Funding was identified for a fiscal year but no actuals were reported in one or more of these categories NPS performance reports to OMB and Congress require that the agency compare projected and actual performance and provide an explaination when projected performance is not met. If goal is abandoned then state that in the comments. If access is locked please contact your regional GPRA coordinator to update actual performance.When problem corrected. please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ia4	2004	<None>	<None Selected>		
Ia4	2005	<None>	<None Selected>		
Ia4	2001	Met	<None Selected>	There were no NPDES permit violations in FY01	
Ia4	2002	<None>	<None Selected>		
Ia4	2003	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: Ia5

Park/Program Abbreviation: YELL

Organization Code. 1570

Region IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30. 2005. 50% (12.113 of 24.225 structures) of the historic structures on the 1999 List of Classified Structures are in good condition

Baseline: All structures listed on the LCS as of the end of FY 1999

Performance Indicator: Condition

Desired Condition: Good

Unit of Measure: Each Structure

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30. 2005. 453 (50%) of 907 Yellowstone Naitonal Park historic structures listed on the FY1999 National Park Service List of Classified Structures (LCS) are in good condition

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	907	907
Status in Base Yea	400	469

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia5	Ia5	Ia5	Ia5	Ia5
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	400	415	435	445	453
	Actual:	473	0	0	0	0
Employee FTE	Projected:	3.4	3.4	3.4	3.4	3.4
	Actual:	24.4	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	843	848	848	848	848
	Actual:	44	0	0	0	0
ONPS Other	Projected:	0	152	158	158	158
	Actual:	297	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	2666	4450	5411	0	0
	Actual:	608	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	205	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	700	700	700	700	700
	Actual:	1455	0	0	0	0
Totals:	Projected:	$4,209	$6,150	$7,117	$1,706	$1,706
	Actual:	$2,609	$	$	$	$

Author Comments

Servicewide Goal Number Ia5

LCS data is known to be inaccurate but extent of overrating of structures in good condition will not be known until FY2001. Therefore base year status and 2001 performance target are roughly estimated as 400

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph
Ia5	YELL	108	Missing, incomplete and/or contradictory information (such as Performance, FTE, and/or Dollars not projected for all Fiscal Years)
	YELL	190	A Performance Target or FTE or Funding was identified for a fiscal year but no actuals were reported in one or more of these categories. NPS performance reports to OMB and Congress require that the agency compare projected and actual performance and provide an explaination when projected performance is not met. If goal is abandoned then state that in the comments. If access is locked, please contact your regional GPRA coordinator to update actual performance.When problem corrected, please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ia5	2002	<None>	<None Selected>		
Ia5	2003	<None>	<None Selected>		
Ia5	2004	<None>	<None Selected>		
Ia5	2005	<None>	<None Selected>		
Ia5	2001	Exceeds	<None Selected>	During FY1999, 1,106 (100%) of the park's historic structures were entered into the List of Classified Structures (LCS) Of the 907 structures accepted, 468 were listed in good condition, so the park MET THIS GOAL. However, the database does not contain an accurate reflection of the condition of all listed historic structures. The condition of the park's historic structures ranges from very good to very poor. Lack of funds, a harsh winter environment, and insufficient preventive maintenance has taken their toll on many structures. Maintaining the park's historic structures in good condition supports the National Historic Preservation Act and the cultural resource integrity of the national park system. "Good condition" means structures and their significant features need only routine repairs or cyclic maintenance	

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ia5	2002	<None>	<None Selected>		
Ia5	2003	<None>	<None Selected>		
Ia5	2004	<None>	<None Selected>		
Ia5	2005	<None>	<None Selected>		
Ia5	2001	Exceeds	<None Selected>	During FY1999, 1,106 (100%) of the park's historic structures were entered into the List of Classified Structures (LCS). Of the 907 structures accepted, 468 were listed in good condition, so the park MET THIS GOAL. However, the database does not contain an accurate reflection of the condition of all listed historic structures. The condition of the park's historic structures ranges from very good to very poor. Lack of funds, a harsh winter environment, and insufficient preventive maintenance has taken their toll on many structures. Maintaining the park's historic structures in good condition supports the National Historic Preservation Act and the cultural resource integrity of the national park system. "Good condition" means structures and their significant features need only routine repairs or cyclic maintenance.	

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	**Year**	**Status**	**Reason**	**Performance Comments**	**Problem Comments**
				Many of the structures shown as "good," especially concessions facilities, are actually in fair or even poor condition. A parkwide historic structures inventory was completed in FY2000, however the information on the LCS does not include current condition or cost estimates to repair or restore structures. Only regional office staff have access to the LCS and, in 2001 they continued to work with park staff to update or amend the information in the LCS; as of Sept. 2001, 240 of the listed structures had updated information. Yellowstone is a participant in the pilot program to test an asset management program FMSS (Maximo) database which should be far more accurate than the LCS or current building inventories and will allow the park to move forward in tracing the condition of historic structures.	

Number of Goals Shown For Park: 5

Region Name: INTERMOUNTAIN REGION

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** Ia6

Park/Program Abbreviation: YELL Organization Code 1570

Region IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30, 2005, 73.4% of preservation and protection standards for park museum collections are met

Baseline: This is the number of applicable standards that currently apply to the park, program, or central office collection(s) Standards that apply are the combined yes and no answers on the Checklist submitted by the park/program to the Museum Management Program

Performance Indicator: Applicable Standards

Desired Condition: Meet Standards Unit of Measure: Each Standard

PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, 189 (35%) of 536 preservation and protection standards for Yellowstone National Park are met.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	536	439
Status in Base Yea	163	183

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia6	Ia6	Ia6	Ia6	Ia6
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	175	178	181	184	189
	Actual:	184	0	0	0	0
Employee FTE	Projected:	2.5	2.5	2.5	2.5	2.5
	Actual:	2.5	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	20	16	16	16	16
	Actual:	34	0	0	0	0
ONPS Other	Projected:	35	82	82	82	82
	Actual:	99	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	6046	6796	0	0	0
	Actual:	45	0	0	0	0
Fee Programs	Projected:	50	0	0	0	0
	Actual:	85	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$6,151	$6,894	$98	$98	$98
	Actual:	$263	$	$	$	$

Author Comments

Servicewide Goal Number Ia6

Certified data do not include Yellowstone Archives which were added to the checklist

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph
Ia6	YELL	108	Missing, incomplete and/or contradictory information (such as Performance, FTE, and/or Dollars not projected for all Fiscal Years)
	YELL	190	A Performance Target or FTE or Funding was identified for a fiscal year but no actuals were reported in one or more of these categories. NPS performance reports to OMB and Congress require that the agency compare projected and actual performance and provide an explaination when projected performance is not met. If goal is abandoned then state that in the comments. If access is locked, please contact your regional GPRA coordinator to update actual performance.When problem corrected, please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ia6	2003	<None>	<None Selected>		
Ia6	2002	<None>	<None Selected>		
Ia6	2004	<None>	<None Selected>		
Ia6	2005	<None>	<None Selected>		
Ia6	2001	Exceeds	<None Selected>	Funding was requested for a 2 year project (FY2000-FY2001) to correct 10 deficiencies: 4 during FY2000 and 6 during FY2001. Only 3 of the 4 deficiencies were fully corrected in FY2000, so during FY2001 the remaining 7 deficiencies were corrected, exceeding our goal of 6 for FY2001. The percentage compliance fell from 37.2% in FY2000 (177/476) to 34 3% (184/536) for FY2001 due to the incorporation of the Library/Archives as an additional storage facility in the Automated Checklist Program. The addition of this facility significantly increased the total number of items needing compliance, decreasing the percentage compliance At the time of this writing, the ACP module is undergoing a programming dificulty. It was necessary to manually	

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
				calculate the percentage compliance for FY2001. After the module is corrected, new figures may be calculated.	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** Ia8

Park/Program Abbreviation: YELL Organization Code: 1570

Region. IM

Year to Complete Goal 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30, 2005, 50% of the FY 1999 recorded archeological sites with condition assessments are in good condition. (7.470 of 14.940 sites)

Baseline: All parks with archeological sites listed on ASMIS (Archeological Sites Management Information System), with condition assessments, as of the end of FY 1999

Performance Indicator: Condition

Desired Condition: Good Unit of Measure: Each Site

PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, 101 (17%) of 605 Yellowstone National Park archeological sites listed on the FY1999 National Park Service Archeological Sites Management Information System (ASMIS), with condition assessments, are in good condition.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	605	651
Status in Base Yea	101	107

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia8 FY 2001	Ia8 FY 2002	Ia8 FY 2003	Ia8 FY 2004	Ia8 FY 2005
Performance	Projected	101	101	101	101	101
	Actual	108	0	0	0	0
Employee FTE	Projected:	.6	.6	.6	.6	.6
	Actual:	1.1	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	32	25	25	25	25
	Actual:	74	0	0	0	0
ONPS Other	Projected:	45	0	0	0	0
	Actual:	41	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	2	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$77	$25	$25	$25	$25
	Actual:	$117	$	$	$	$

Author Comments

Servicewide Goal Number Ia8

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ia8	2001	Exceeds	<None Selected>	We have exceeded this goal. Our goal was to have 101 sites in good condition and we have 108 sites in good condition	
Ia8	2002	<None>	<None Selected>		
Ia8	2003	<None>	<None Selected>		
Ia8	2004	<None>	<None Selected>		
Ia8	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: Ib2A

Park/Program Abbreviation: YELL

Organization Code 1570

Region IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, Archeological sites inventoried and evaluated are increased by 30% (from FY 1999 baseline of 48,188 sites to 62,644)

Baseline: Total number of sites inventoried, evaluated, and entered into ASMIS as of the end of FY 1999

Performance Indicator: Number in database

Desired Condition: Increase

Unit of Measure: Each Archeological Site Added

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the number of Yellowstone National Park archeological sites inventoried, evaluated and listed on the Naitonal Park Service Archeological Sites Management Information System (ASMIS) is increased from 957 in FY1999 to 1,014

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	957	996
Status in Base Yea	0	996

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	Ib2A FY 2001	Ib2A FY 2002	Ib2A FY 2003	Ib2A FY 2004	Ib2A FY 2005
Performance	Projected:	964	984	994	1004	1014
	Actual	1023	0	0	0	0
Employee FTE	Projected	.5	.5	.5	.5	.5
	Actual	.9	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	20	16	16	16	16
	Actual:	65	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	30	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$20	$16	$16	$16	$16
	Actual:	$95	$	$	$	$

Author Comments

Servicewide Goal Number Ib2A

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ib2A	2001	Exceeds	<None Selected>	We exceeded our goal as there are 1023 sites in ASMIS as of Sept 30, 2001	
Ib2A	2002	<None>	<None Selected>		
Ib2A	2003	<None>	<None Selected>		
Ib2A	2004	<None>	<None Selected>		
Ib2A	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: Ib2B

Park/Program Abbreviation YELL
Organization Code 1570
Region IM
Year to Complete Goal. 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30, 2005 Cultural landscapes inventoried and evaluated at Level II are increased by 136 4% (from FY 1999 baseline of 110 to 260)

Baseline: Number of Units in Baseline: Total number of cultural landscapes inventoried, evaluated at Level II, and entered into CLI as of the end of FY 1999

Performance Indicator: Number in database

Desired Condition: Increase

Unit of Measure: Each Cultural Landscape Added

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number. YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the number of Yellowstone National Park cultural landscapes entered on the National Park Service Cultural Landscapes Inventory is increased from zero in FY1999 to two

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	0	0
Status in Base Yea	0	0

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ib2B FY 2001	Ib2B FY 2002	Ib2B FY 2003	Ib2B FY 2004	Ib2B FY 2005
Performance	Projected	2	2	2	2	2
	Actual:	1	0	0	0	0
Employee FTE	Projected	.5	.5	.5	.5	.5
	Actual:	.2	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	25	20	20	20	20
	Actual:	19	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$25	$20	$20	$20	$20
	Actual:	$19	$	$	$	$

Goal Detail Report

Author Comments

Servicewide Goal Number Ib2B

12/1/00 Goals for 2001 and out revised to two

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph
Ib2B	YELL	104	Missing, incomplete and/or contradictory information
	YELL	190	A Performance Target or FTE or Funding was identified for a fiscal year but no actuals were reported in one or more of these categories. NPS performance reports to OMB and Congress require that the agency compare projected and actual performance and provide an explaination when projected performance is not met. If goal is abandoned then state that in the comments. If access is locked please contact your regional GPRA coordinator to update actual performance.When problem corrected, please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ib2B	2001	Did Not Meet	Overestimated performance capability	A contracted CLI for the Stephen's Creek area has been completed, and an in house CLI is nearly complete for Appolinaris Spring.	A contract has been let for the completion of a CLI Level II for Artist Point and a CLI Level II is in progress for Apollanaris Spring
Ib2B	2002	<None>	<None Selected>		
Ib2B	2003	<None>	<None Selected>		
Ib2B	2004	<None>	<None Selected>		
Ib2B	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Goal Detail Report

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** Ib2C

Park/Program Abbreviation: YELL Organization Code: 1570

Region IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30, 2005 100% of the historic structures have updated information (FY 1999 baseline 24,225 of 24,225).

Baseline: Number of historic structures recorded in the LCS database as of FY 1999 (24,225)

Performance Indicator: LCS records

Desired Condition: Updated Unit of Measure: Each

PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, all 907 (100%) of Yellowstone National Park historic structures on the FY1999 List of Classified Structures (LCS) have updated information in their LCS records.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	907	907
Status in Base Yea	0	0

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ib2C FY 2001	Ib2C FY 2002	Ib2C FY 2003	Ib2C FY 2004	Ib2C FY 2005
Performance	Projected:	907	907	907	907	907
	Actual:	907	0	0	0	0
Employee FTE	Projected:	.3	.3	.3	.3	.3
	Actual:	.4	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	22	17	17	17	17
	Actual:	44	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$22	$17	$17	$17	$17
	Actual:	$44	$	$	$	$

Author Comments

Servicewide Goal Number Ib2C

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph
Ib2C	YELL	108	Missing, incomplete and/or contradictory information (such as Performance, FTE, and/or Dollars not projected for all Fiscal Years)
	YELL	190	A Performance Target or FTE or Funding was identified for a fiscal year but no actuals were reported in one or more of these categories. NPS performance reports to OMB and Congress require that the agency compare projected and actual performance and provide an explaination when projected performance is not met. If goal is abandoned then state that in the comments. If access is locked, please contact your regional GPRA coordinator to update actual performance.When problem corrected, please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ib2C	2002	<None>	<None Selected>		
Ib2C	2003	<None>	<None Selected>		
Ib2C	2004	<None>	<None Selected>		
Ib2C	2005	<None>	<None Selected>		
Ib2C	2001	Met	<None Selected>	Significant progress was made this year in updating Yellowstone National Park's List of Classified Structures. The IMR completed and forwarded updated forms to Washington, D.C. for the Bechler River Soldier Station (7 structures); the Yellowstone National Park Transportation Company Historic District (20 structures), and the Mammoth Hot Springs Historic District (206 structures). The Roosevelt Lodge Historic District (206 structures) is nearing completion and work has begun on the Lake Historic District (approximately 70 structures) forms.	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: Ib2D

Park/Program Abbreviation: YELL

Organization Code 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30, 2005, Museum objects cataloged are increased by 35.9% (from FY 1999 baseline of 37.3 million to 50.7 million)

Baseline: The number of resources entered into ANCS+ and submitted to the National Catalog as of FY 1999

Performance Indicator: Number in database

Desired Condition: Increase

Unit of Measure: Each Museum Object Added

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the number of Yellowstone National Park museum objects cataloged into the National Park Service Automated National Catalog System (ANCI+) and submitted to the National Catalog is increased from 115,582 in FY1999 to 121,652.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	115582	115582
Status in Base Yea	115582	182738

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ib2D FY 2001	Ib2D FY 2002	Ib2D FY 2003	Ib2D FY 2004	Ib2D FY 2005
Performance	Projected:	122105	122105	122105	122105	122105
	Actual:	124720	0	0	0	0
Employee FTE	Projected:	5.1	5.1	5.1	5.1	5.1
	Actual:	1.4	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	157	184	184	184	184
	Actual:	108	0	0	0	0
ONPS Other	Projected:	21	90	90	90	90
	Actual:	40	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$178	$274	$274	$274	$274
	Actual:	$148	$	$	$	$

Author Comments

Servicewide Goal Number Ib2D

Park questions certified data: due to combining of park Collections Management Report with MWAC's report, the portion of the park's cataloged objects which are located at MWAC (and vise versa) may be double counted in PMDS (unless MWAC's certified data are reduced accordingly)

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ib2D	2002	<None>	<None Selected>		
Ib2D	2005	<None>	<None Selected>		
Ib2D	2001	Exceeds	<None Selected>	From 10-01 2000 through 09-30-2001 a total of 3115 objects have been cataloged. The breakdown by catagory is as follows: 1399 in CRYELL (cultural), 8 in YELLNH (natural history), and 1708 in YELLONH (herbarium). The projected goal for FY2001 was only 500 items, so we have exceeded our goal by 2615 This should increase our projected goal total from 122,105 to 124,720	
Ib2D	2003	<None>	<None Selected>		
Ib2D	2004	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: Ib2E

Park/Program Abbreviation YELL

Organization Code 1570

Region IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, Ethnographic resources inventory is increased 634% (from FY 1999 baseline of 400 to 2,938)

Baseline: Number of ethnographic resources inventoried, evaluated and entered into the database (ERI) as of FY 1999

Performance Indicator: Number in database

Desired Condition: Increase

Unit of Measure: Each Ethnographic Resource Added

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the number of Yellowstone National Park ethnographic resources inventoried, evaluated and entered on the National Park Service Ethnographic Resources Inventory (ERI) is increased from zero in FY1999 to 130.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	0	
Status in Base Yea	0	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ib2E FY 2001	Ib2E FY 2002	Ib2E FY 2003	Ib2E FY 2004	Ib2E FY 2005
Performance	Projected	26	52	78	104	130
	Actual	0	0	0	0	0
Employee FTE	Projected	1.1	1.1	1.1	1.1	1.1
	Actual:	.9	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	5	5	5	5	5
	Actual:	61	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	30	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$5	$5	$5	$5	$5
	Actual:	$91	$	$	$	$

Author Comments

Servicewide Goal Number Ib2E

YELL disagrees with the WASO total of 53 ethnographic resources. As of FY99 the park's draft Ethnographic Overview and Assessment had not been reviewed and accepted by the park or affiliated tribes. The 53 resources identified in the WASO total are museum collection items inventoried in compliance with NAGPRA, as well as photographs curated in park archives. As of FY99 these items had not been accepted as ethnographic resources, and those that are not related to YELL and its affiliated tribes won't be accepted. Therefore the correct baseline number for this goal is zero

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ib2E	2001	Did Not Meet	Overestimated performance capability	Unexpected workload to comply with Native American Graves Protection and Repatriation Act, as well as unexpected visitation by an additional tribal delegations superseded time prioritized for data entry.	Expect to meet goal winter 2001/2002
Ib2E	2002	<None>	<None Selected>		
Ib2E	2003	<None>	<None Selected>		
Ib2E	2004	<None>	<None Selected>		
Ib2E	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: Ib2F

Park/Program Abbreviation: YELL
Organization Code: 1570
Region: IM
Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30, 2005, 31% of parks have historical research that is current and completed to professional standards (117 of 379)

Baseline: Historical research in CRBIB that has been approved since 1980

Performance Indicator: Historical research in CRBIB

Desired Condition: Current and complete
Unit of Measure: Each Park

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, Yellowstone National Park's Historic Resource Studies (HRS) and Administrative History are not completed to professional standards, current (approved since 1980), and entered in CRBIB

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	0	
Status in Base Yea	0	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	Ib2F FY 2001	Ib2F FY 2002	Ib2F FY 2003	Ib2F FY 2004	Ib2F FY 2005
Performance	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Employee FTE	Projected:	0	0	0	0	0
	Actual:	.3	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	5	5	5	5	5
	Actual:	15	0	0	0	0
ONPS Other	Projected:	0	21	21	21	21
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	15	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$5	$26	$26	$26	$26
	Actual:	$30	$	$	$	$

Goal Detail Report

Author Comments

Servicewide Goal Number Ib2F

Yellowstone has completed one HRS: "The History of the Construction of the Road System in Yellowstone National Park, 1872-1966." Two other HRSs are in progress: The History of Concessions is complete but not yet printed, and the History of Administration (not the same as an Administrative History) is in peer review

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ib2F	2002	<None>	<None Selected>		
Ib2F	2003	<None>	<None Selected>		
Ib2F	2004	<None>	<None Selected>		
Ib2F	2005	<None>	<None Selected>		
Ib2F	2001	Met	<None Selected>	Yellowstone National Park completed one Historic Resource Study, The History of the Construction of the Road System in Yellowstone National Park, 1872-1966., and has two others in some state of completion. The History of Concessions was written some years ago and was edited in FY2001	Significant progress has been made toward completion, which we expect by FY2003. Plans are to complete a user friendly and well illustrated version to the GPO for printing in FY2002. The History of Administration, which was also written some years ago, will be updated in FY2002-2003. In FY2002, a contract to a Montana State University professor was arranged through the Rocky Mountain CESU to update this history and include information needed to help park staff evaluate and manage historic structures.

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: Ib3

Park/Program Abbreviation YELL

Organization Code 1570

Region IM

Year to Complete Goal 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, 80% of 265 parks with significant natural resources have identified their vital signs for natural resource monitoring

Baseline: 265 parks with significant natural resources, see Appendix E.

Performance Indicator: Vital signs

Desired Condition Identified

Unit of Measure Each Park

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal By September 30, 2005, Yellowstone National Park has identified its vital signs for natural resource monitoring

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	0	
Status in Base Yea	0	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number.	Ib3	Ib3	Ib3	Ib3	Ib3
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected.	0	0	0	0	1
	Actual	0	0	0	0	0
Employee FTE	Projected	.2	.2	.2	.2	.2
	Actual	2.2	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	5	5	5	5	5
	Actual	224	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	11	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$5	$5	$5	$5	$5
	Actual:	$235	$	$	$	$

Goal Detail Report

Author Comments

Servicewide Goal Number Ib3

There were zero vital signs identified in baseline year

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
Ib3	2002	<None>	<None Selected>		
Ib3	2003	<None>	<None Selected>		
Ib3	2004	<None>	<None Selected>		
Ib3	2005	<None>	<None Selected>		
Ib3	2001	Did Not Meet	Other	Performance Comments	While this goal was not achieved, significant progress was made in developing a long term inventory and monitoring program for the Greater Yellowstone Network, comprised of Yellowstone and Grand Teton national parks and Bighorn Canyon National Recreation Area. We assigned a Board of Directors to guide the project and a technical committee to lead operations, hired an Inventory and Monitoring coordinator and two term cartographic technicians, began to develop and populate a relational database for monitoring data, began to assemble a Scientific Advisory Committee to lend scientific credibility to the effort, started an internet based Delphi process to gather expert opinion on what resources, stressors, and ecological processes to represent vital signs [illegible] held three on-site workshops to understand the needs of each park and [illegible] the project

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
					forward; and developed a budget and workplan to guide 2002 effort

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** IIa0

Park/Program Abbreviation: YELL Organization Code 1570

Region IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities services, and appropriate recreational opportunities. [Any goal identified here MUST NOT relate to visitor satisfaction or report dollars and FTE that support the visitor satisfaction goal (see goal IIa1). This goal may be used to record alternate methods of measuring success with visitor enjoyment/satisfaction, as long as all dollars and FTE are shown in goal IIa1.]

Baseline 1998 average park facilities survey

Performance Indicator: visitor satisfaction

Desired Condition: satisfied Unit of Measure: percent of visitors

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PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL-01

Park/Program/Office Long-term Goal: By September 30, 2005, 80% of Yellowstone National Park visitors are satisfied with appropriate combined park facilities.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	79	
Status in Base Yea	79	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	IIa0	IIa0	IIa0	IIa0	IIa0
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	79	79	79	79	80
	Actual:	87	0	0	0	0
Employee FTE	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Author Comments

Servicewide Goal Number IIa.

Baseline percentage is average of 1998 park facilities visitor survey

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IIa0	2001	Exceeds	<None Selected>	The 2001 Visitor Survey Card Data Report indicates that 87% of the visitors were satisfied with the combined park facilities The increases from the baseline years of 1998 through 2000 are most evident in the "very good" category that has increased from 40% to 53%. The improvement is most probably associated with the long term road reconstruction and rehabilitation program that is funded from the 5 cents per gallon national gas tax	
IIa0	2002	<None>	<None Selected>		
IIa0	2003	<None>	<None Selected>		
IIa0	2004	<None>	<None Selected>		
IIa0	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Goal Detail Report

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IIa2

Park/Program Abbreviation YELL

Organization Code 1570

Region: IM

Year to Complete Goal. 2005

DESCRIPTION OF:

Servicewide Goal Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities. [Any goal identified here MUST NOT relate to visitor satisfaction or report dollars and FTE that support the visitor satisfaction goal (see goal IIa1). This goal may be used to record alternate methods of measuring success with visitor enjoyment/satisfaction, as long as all dollars and FTE are shown in goal IIa1.]

Baseline 1998 average visitor services survey

Performance Indicator: visitor satisfaction

Desired Condition. satisfied

Unit of Measure: percent

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL-02

Park/Program/Office Long-term Goal: By September 30, 2005, 91% of Yellowstone National Park visitors are satisfied with appropriate combined visitor services

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	91	
Status in Base Yea	91	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IIa0	IIa0	IIa0	IIa0	IIa0
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected	91	91	91	91	91
	Actual:	88	0	0	0	0
Employee FTE	Projected	0	0	0	0	0
	Actual	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected	0	0	0	0	0
	Actual	0	0	0	0	0
ONPS Other	Projected	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected.	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Servicewide Goal Number IIaC

Author Comments

Baseline percentage is the average of 1998 visitor services survey

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IIa0	2003	<None>	<None Selected>		
IIa0	2005	<None>	<None Selected>		
IIa0	2002	<None>	<None Selected>		
IIa0	2004	<None>	<None Selected>		
IIa0	2001	Did Not Meet	Overestimated performance capability		The average of the [illegible] services exceeds this goal (91% 91% & 93%), while the commercial services sector does not meet this goal [illegible]. Commercial services are staffed by 3,500 seasonal employees who must all be trained and supervised in a broad range of [illegible]. There is a high percentage of staff turnover during the peak season, resulting in new employees performing jobs for which they have not been adequately trained. [illegible] employee housing [illegible] in a remote [illegible] and turnover in personnel. [illegible] management staff [illegible] be hired and RETAINED without appropriate management housing. These factors [illegible] the quality of [illegible] services because of [illegible] staffing, poorly trained staff, and poor attitudes. A 3-yr extension for [illegible] contract will [illegible] funds for construction of management [illegible]

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** IIa0

Park/Program Abbreviation YELL Organization Code 1570

Region IM

Year to Complete Goal 2005

DESCRIPTION OF:

Servicewide Goal Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities [Any goal identified here MUST NOT relate to visitor satisfaction or report dollars and FTE that support the visitor satisfaction goal (see goal IIa1). This goal may be used to record alternate methods of measuring success with visitor enjoyment/satisfaction, as long as all dollars and FTE are shown in goal IIa1.]

Baseline visitor satisfaction surveys

Performance Indicator. visitor satisfaction

Desired Condition satisfied Unit of Measure: percent

PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL-03

Park/Program/Office Long-term Goal: By September 30, 2005, 95% of Yellowstone National Park visitors are satisfied with appropriate combined recreational opportunities.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	93	
Status in Base Yea	93	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IIa0 FY 2001	IIa0 FY 2002	IIa0 FY 2003	IIa0 FY 2004	IIa0 FY 2005
Performance	Projected:	93	93	94	94	95
	Actual:	94	0	0	0	0
Employee FTE	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Author Comments

Servicewide Goal Number IIa3

Baseline percentage is the average of the 1998 recreational opportunities vistor survey

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IIa0	2001	Exceeds	<None Selected>	While the sightseeing satisfaction element was 99%, the visitors expressed a desire to have more opportunities to learn about nature, history, and culture, as demonstrated in the satisfaction rate of only 90%	
IIa0	2002	<None>	<None Selected>		
IIa0	2003	<None>	<None Selected>		
IIa0	2004	<None>	<None Selected>		
IIa0	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IIa1

Park/Program Abbreviation YELL
Organization Code 1570
Region IM
Year to Complete Goal 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, 95% of park visitors are satisfied with appropriate park facilities, services, and recreational opportunities

Baseline: Official NPS Surveys

Performance Indicator: Visitor Satisfaction

Desired Condition Satisfied

Unit of Measure Percentage

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, 95% of Yellowstone National Park visitors are satisfied with appropriate park facilities, services, and recreational opportunities.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	95	
Status in Base Yea	0	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	IIa1	IIa1	IIa1	IIa1	IIa1
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected	95	95	95	95	95
	Actual	94	0	0	0	0
Employee FTE	Projected:	172.8	172.8	172.8	172.8	172.8
	Actual:	178.6	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	9301	9464	9464	9464	9464
	Actual:	10242	0	0	0	0
ONPS Other	Projected:	2070	2820	2820	2820	2820
	Actual:	84	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	10269	0	0
	Actual:	1809	0	0	0	0
Fee Programs	Projected:	1600	1600	0	0	0
	Actual:	712	0	0	0	0
Donations	Projected:	10	10	10	10	10
	Actual:	3	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	1024	0	0	0	0
Totals:	Projected:	$12,981	$13,894	$22,563	$12,294	$12,294
	Actual:	$13,874	$	$	$	$

Author Comments

Servicewide Goal Number IIa1

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

RUNDATE: 02-NOV-2001
RUNTIME: 10 14 AM EST

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IIa1	2002	<None>	<None Selected>		
IIa1	2005	<None>	<None Selected>		
IIa1	2003	<None>	<None Selected>		
IIa1	2004	<None>	<None Selected>		
IIa1	2001	Did Not Meet	Overestimated performance capability		Yellowstone's overall satisfaction rating has stayed right around the goal of 95% for the past four years (95% in 1998, 97% in 1999, 93% in 2000; and now 94% in 2001). When comparing 1999 results with 2001 results by category, Yellowstone was ahead of the 1999 results in all areas, except overall. The satisfaction with combined park facilities increased from 74% to 87%, the satisfaction with combined visitor services increased from 84% to 88%, and the satisfaction with combined recreational opportunities increased from 93% to 94%. Yet overall satisfaction dropped 3%. The overall number is determined by those who respond "very good" or "good" to the question. In 1999, 49% of the respondents said the overall quality of facilities, services, and recreational opportunities was very good, while in 2001, [illegible] said the overall quality was very good. However in 1999,

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	**Year**	**Status**	**Reason**	**Performance Comments**	**Problem Comments**
					48 percent thought the overall quality was good, whereas in 2001, only 32% thought the overall quality was good. Upon examination of the individual survey results, written comments changed in character this year. In the past narrative comments concentrated on shortcomings in roads and restrooms. This year, the comments and suggestions for improvements were more varied, with concerns about signs and information equalling comments about the poor quality of roads and restrooms.

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IIa2

Park/Program Abbreviation. YELL

Organization Code 1570

Region IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30. 2005. The visitor accident/incident rate will be at or below 7.96 per 100.000 visitor days [a 16% decrease from the FY 1992 - FY 1996 baseline of 9 48 per 100.000 visitor days]

Baseline: 1992-1996 Average Visitor Accident/Incident Rate

Performance Indicator Visitor Safety Incident Rate

Desired Condition: Reduced

Unit of Measure: Visitor Accident/Incident Rate

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal. By September 30, 2005, the number of Yellowstone National Park visitor accidents/incidents is no higher than the FY1992-FY1996 five-year average of 353.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	353	
Status in Base Yea	0	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	IIa2	IIa2	IIa2	IIa2	IIa2
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	353	353	353	353	353
	Actual:	166	0	0	0	0
Employee FTE	Projected:	137.9	137.9	137.9	137.9	137.9
	Actual:	213.1	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	6772	6864	6864	6864	6864
	Actual:	7807	0	0	0	0
ONPS Other	Projected:	788	1174	1174	1174	1174
	Actual:	1495	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	1126	0	0
	Actual:	1	0	0	0	0
Fee Programs	Projected:	1416	1416		0	0
	Actual:	2557	0	0	0	0
Donations	Projected:	2	2	2	2	2
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	1458	0	0	0	0
Totals:	Projected:	$8,978	$9,456		$8,040	$8,040
	Actual:	$13,318	$	$	$	$

Author Comments

Servicewide Goal Number 1.a2

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IIa2	2001	Met	<None Selected>	Performance was measured by counting serious injury, illness or deaths by going through the EMS run sheets	
IIa2	2002	<None>	<None Selected>		
IIa2	2003	<None>	<None Selected>		
IIa2	2004	<None>	<None Selected>		
IIa2	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** IIb0

Park/Program Abbreviation: YELL Organization Code 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: Park visitors and the general public understand and appreciate the preservation of parks and their resources for this and future generations. [Any goal identified here MUST NOT relate to visitor understanding and appreciation as defined in goal IIb1 or report dollars and FTE that support the visitor understanding goal (see goal IIb1). This goal may be used to plan/report performance with improving the understanding of the public in general (such as public relations), or may be used to record alternate methods of measuring success with visitor understanding and appreciation, as long as all dollars and FTE are shown in goal IIb1. See IIbX for formal educational programs.]

Baseline: student understanding

Performance Indicator: student understanding

Desired Condition: student understanding Unit of Measure: percent

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PARK/PROGRAM DETAILS Park/Program Goal Identification Number YELL-01

Park/Program/Office Long-term Goal: By September 30, 2005, 95% of students participating in the park's formal, educational programs understand Yellowstone's cultural and natural heritage as preserved by Yellowstone National Park and its programs

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	0	
Status in Base Yea	0	

Goal Detail Report

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IIb0	IIb0	IIb0	IIb0	IIb0
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	95	95	95	95	95
	Actual:	100	0	0	0	0
Employee FTE	Projected:	2.3	2.3	2.3	2.3	2.3
	Actual:	2.5	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	61	0	0	0	0
	Actual:	117	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$61	$	$	$	$
	Actual:	$117	$	$	$	$

Author Comments

Servicewide Goal Number IIb0

Baseline TBD. Evaluation plan will be developed in FY00 and used in FY01 to FY05. Goal will be measured by asking teachers to rate student understanding of what they learned by participating in YELL education programs

Reviewer Comments

RGThoman review comments 9/10/01

1) You have FTE and results for FY02-FY05 but no dollars

Your comment below indicates baseline was to be established in FY00. If that was done last year, please fill in resulting percentage understanding for FY00 in Total Number of Units in Baseline on the Park/Program Details tab

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph
IIb0	YELL-01	900	There are problems with this goal or it's data in PMDS. Please correct the problem identified and/or explain further in the "Park/Program Comments" box at the bottom of the screen. Please be sure to mark "Data reviewed and corrected. (Turn on green flag.)" in the "Author Response" box before you save the revised record. When problem corrected, please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab
	YELL-01	902	Missing, incomplete and/or contradictory information. When problem corrected, please click on the "data has been reviewed and corrected" box at the bottom of the Comments/Flags tab

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IIb0	2001	Exceeds	<None Selected>	Goal was exceeded. 100% of the teachers who responded to our evaluation questionnaire for the residential program, Expedition: Yellowstone!, stated that their students gained an understanding of Yellowstone's cultural and natural heritage	
IIb0	2002	<None>	<None Selected>		
IIb0	2003	<None>	<None Selected>		
IIb0	2004	<None>	<None Selected>		
IIb0	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IIb1

Park/Program Abbreviation: YELL

Organization Code: 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, 86% of park visitors understand and appreciate the significance of the park they are visiting

Baseline: TBD

Performance Indicator: Understanding

Desired Condition: Understand

Unit of Measure: Percentage

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, 95% of Yellowstone National Park visitors understand the significance of the park.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	59	
Status in Base Yea	0	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IIb1	IIb1	IIb1	IIb1	IIb1
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	59	65	75	85	95
	Actual:	61	0	0	0	0
Employee FTE	Projected:	16.9	16.9	16.9	16.9	16.9
	Actual:	23.7	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	815	874	874	874	874
	Actual:	541	0	0	0	0
ONPS Other	Projected:	88	75	75	75	75
	Actual:	149	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	1850	7500	940	940	940
	Actual:	969	0	0	0	0
Donations	Projected:	3	3	3	3	3
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$2,756	$8,452	$1,892	$1,892	$1,892
	Actual:	$1,659	$	$	$	$

Servicewide Goal Number IIb1

Author Comments

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Projected	Actual	Year	Status	Reason
IIb1	75	0	2003	<None>	<None Selected>

Performance Comments:

Problem Comments:

Goal	Projected	Actual	Year	Status	Reason
IIb1	59	61	2001	Exceeds	<None Selected>

Performance Comments: For the first time one half of the cards were distributed by Interpretive Park Rangers following an educational program or while they completed an informal rove assignment contributing to the park exceeding the goal.

Attendance at formal interpretive programs increased approximately 11% affording more opportunities for rangers to talk about the significance of Yellowstone National Park with visitors.

Problem Comments:

Goal	Projected	Actual	Year	Status	Reason
IIb1	65	0	2002	<None>	<None Selected>

Performance Comments:

Problem Comments:

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Projected	Actual	Year	Status	Reason
IIb1	85	0	2004	<None>	<None Selected>

Performance Comments:

Problem Comments:

Goal	Projected	Actual	Year	Status	Reason
IIb1	95	0	2005	<None>	<None Selected>

Performance Comments:

Problem Comments:

Number of Goals Shown For Park:	5
Number of Goals Shown For Region:	5
Number of Goals Shown For Report:	5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** IIIaX

Park/Program Abbreviation: YELL Organization Code 1570

Region IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30, 2005, The number of satisfactorily completed projects under formal agreements that assist partners in protecting their resources or serving their visitors is increased by x% (park-determined) OPTIONAL GOAL

Baseline: Number of satisfactorily completed projects as of the end of FY 1999

Performance Indicator: Projects

Desired Condition Satisfactorily completed Unit of Measure Each Project

---

PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the number of projects satisfactorily completed by Greater Yellowstone partners under formal agreements that assist partners in protecting their resources or serving their visitors is increased from one in FY1999 to six

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	1	
Status in Base Yea	0	

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Projected	Actual	Year	Status	Reason
IIb1	85	0	2004	<None>	<None Selected>

Performance Comments:

Problem Comments:

Goal	Projected	Actual	Year	Status	Reason
IIb1	95	0	2005	<None>	<None Selected>

Performance Comments:

Problem Comments:

Number of Goals Shown For Park:	5
Number of Goals Shown For Region:	5
Number of Goals Shown For Report:	5

RUNDATE 30-OCT-2001

RUNTIME 06:22 PM ES

Goal Detail Report

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number

Park/Program Abbreviation Y

Organization Code 1570

Region I

Year to Complete Goal 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, The number of satisfactorily completed projects under formal agreements with partners in protecting their resources or serving their visitors is increased by x% (park-determined. GOAL

Baseline: Number of satisfactorily completed projects as of the end of FY 1999

Performance Indicator: Project

Desired Condition: Satisfactorily completed

Unit of Measure: Each Project

PARK/PROGRAM DETAIL

Park/Program Goal Identification Number

Park/Program/Office Long-term Goal: By September 30, 2005, the number of projects satisfactorily completed by Greater Yellowstone partners under formal agreements that assist partners in protecting their resources or serving their visitors is increased FY1999 to si

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	1	
Status in Base Yea	0	

RUNDATE 30-OCT-2001

RUNTIME 06:22 PM EST

Region Name:

End of Year Report

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IIIaX FY 2001	IIIaX FY 2002	IIIaX FY 2003	IIIaX FY 2004	IIIaX FY 2005
Performance	Projected:	1	2	4	5	6
	Actual:	1	0	0	0	0
Employee FTE	Projected:	3.7	3.7	3.7	3.7	3.7
	Actual:	.9	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	191	212	212	212	212
	Actual:	215	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$191	$212	$212	$212	$212
	Actual:	$215	$	$	$	$

Author Comments

Servicewide Goal Number IIIaX

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

RUNDATE 30 OCT 2001

RUNTIME 06:22 PM EST

End of Year Report

Region Name: [illegible]

Park: [illegible]

Goal	Year	Status	Reason	Performance Comments	Problem Comments
[illegible]	2002	<None>	<None Selected>		
[illegible]	2003	<None>	<None Selected>		
[illegible]	2004	<None>	<None Selected>		
[illegible]	2005	<None>	<None Selected>		
[illegible]	2001	Met	<None Selected>	The GYCC published a 37-page Briefing Guide in June 2001 that explains why the GYCC was formed, and describes the role and purpose of the GYCC in the Greater Yellowstone Ecosystem.	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IVa3A

Park/Program Abbreviation: YELL

Organization Code 1570

Region IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30, 2005, 100% of employee performance plans are linked to appropriate strategic and annual performance goals and position competencies.

Baseline: Number of employees

Performance Indicator: Employee performance plans

Desired Condition: Linked

Unit of Measure: Each

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, 100% of Yellowstone National Park permanent and TERM employee performance agreements are linked to appropriate strategic and annual performance goals and position competencies

	Uncertified Data	Certified Data
Total Number of Units in Baseline	361	
Status in Base Yea	361	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	IVa3A	IVa3A	IVa3A	IVa3A	IVa3A
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	361	361	361	361	361
	Actual:	361	0	0	0	0
Employee FTE	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Author Comments

Servicewide Goal Number IVa3A

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVa3A	2004	<None>	<None Selected>		
IVa3A	2005	<None>	<None Selected>		
IVa3A	2001	Met	<None Selected>	This goal was met in 2000 when all employee performance plans we tied to appropriate goals Performance in 2001 is the same	
IVa3A	2002	<None>	<None Selected>		
IVa3A	2003	<None>	<None Selected>		

Number of Goals Shown For Park 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IVa4A

Park/Program Abbreviation YELL

Organization Code: 1570

Region IM

Year to Complete Goal 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, increase the servicewide representation of underrepresented groups over the 1999 baseline by 25% in the 9 targeted occupational series in the permanent workforce

Baseline: NPS employees in targeted series

Performance Indicator: Diversity

Desired Condition: Representation

Unit of Measure Number of Employees

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the number of Yellowstone National Park permanent positions in targeted occupational series filled by employees from underrepresented groups is increased from 32 at the end of FY1999 to 34

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	93	
Status in Base Yea	32	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IVa4A FY 2001	IVa4A FY 2002	IVa4A FY 2003	IVa4A FY 2004	IVa4A FY 2005
Performance	Projected	32	32	33	33	34
	Actual	40	0	0	0	0
Employee FTE	Projected	0	0	0	0	0
	Actual	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected	0	0	0	0	0
	Actual:	0	0	0	0	0
ONPS Other	Projected.	0	0	0	0	0
	Actual	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Goal Detail Report

Author Comments

Servicewide Goal Number IVa4A

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVa4A	2002	<None>	<None Selected>		
IVa4A	2003	<None>	<None Selected>		
IVa4A	2004	<None>	<None Selected>		
IVa4A	2005	<None>	<None Selected>		
IVa4A	2001	Exceeds	<None Selected>	The number of women and minorities in the permanent workforce increased to 40.	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** IVa4B

Park/Program Abbreviation. YELL Organization Code. 1570

Region. IM

Year to Complete Goal. 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, increase the servicewide representation of underrepresented groups over the 1999 baseline by 25% of women and minorities in the temporary and seasonal workforce

Baseline: Number of NPS temporary employees

Performance Indicator. Diversity

Desired Condition: Representation Unit of Measure: Each

PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005 the total number of Yellowstone National Park temporay/seasonal positions annually filled by women and minorities is increased from 179 in FY1999 to 188.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	403	
Status in Base Yea	179	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	IVa4B FY 2001	IVa4B FY 2002	IVa4B FY 2003	IVa4B FY 2004	IVa4B FY 2005
Performance	Projected:	180	182	185	187	188
	Actual:	206	0	0	0	0
Employee FTE	Projected	0	0	0	0	0
	Actual	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Author Comments

Servicewide Goal Number IVa4B

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVa4B	2001	Exceeds	<None Selected>	The number of women and minorities in the seasonal workforce increased to 206	
IVa4B	2002	<None>	<None Selected>		
IVa4B	2003	<None>	<None Selected>		
IVa4B	2004	<None>	<None Selected>		
IVa4B	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IVa4C

Park/Program Abbreviation YELL

Organization Code 1570

Region IM

Year to Complete Goal. 2005

DESCRIPTION OF:

Servicewide Goal. . By September 30, 2005, increase the servicewide representation of underrepresented groups over the 1999 baseline by 10% of individuals with disabilities in the permanent workforce

Baseline. Number of permanent employees

Performance Indicator: Diversity

Desired Condition: Representation

Unit of Measure: Each

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the number of Yellowstone Naitonal Park permanent positions filled by employees with disabilities is increased from eight in FY1999 to nine

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	361	
Status in Base Yea	8	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IVa4C	IVa4C	IVa4C	IVa4C	IVa4C
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected	8	8	9	9	9
	Actual	8	0	0	0	0
Employee FTE	Projected	0	0	0	0	0
	Actual	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected	0	0	0	0	0
	Actual	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Author Comments

Servicewide Goal Number IVa4C

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVa4C	2001	Met	<None Selected>	The number of permanent employees with disabilities is 8.	
IVa4C	2002	<None>	<None Selected>		
IVa4C	2003	<None>	<None Selected>		
IVa4C	2004	<None>	<None Selected>		
IVa4C	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** IVa4D

Park/Program Abbreviation YELL Organization Code 1570

Region IM

Year to Complete Goal. 2005

DESCRIPTION OF:

Servicewide Goal. By September 30, 2005, increase the servicewide representation of underrepresented groups over the 1999 baseline by 10% of individuals with disabilities in the seasonal and temporary workforce

Baseline: Number of seasonal employees

Performance Indicator Diversity

Desired Condition: Representation Unit of Measure: Each

PARK/PROGRAM DETAILS Park/Program Goal Identification Number YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the total number of Yellowtone National Park temporary/seasonal positions annually filled by employees with disabilities is increased from three in FY1999 to four

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	403	
Status in Base Yea	3	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IVa4D FY 2001	IVa4D FY 2002	IVa4D FY 2003	IVa4D FY 2004	IVa4D FY 2005
Performance	Projected	3	3	4	4	4
	Actual	9	0	0	0	0
Employee FTE	Projected:	0	0	0	0	0
	Actual	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Goal Detail Report

Author Comments

Servicewide Goal Number IVa4D

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVa4D	2001	Exceeds	<None Selected>	The number of seasonal employees with disabilities is 9.	
IVa4D	2002	<None>	<None Selected>		
IVa4D	2003	<None>	<None Selected>		
IVa4D	2004	<None>	<None Selected>		
IVa4D	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IVa5

Park/Program Abbreviation: YELL
Organization Code 1570
Region IM
Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, 50% of employee housing units listed in poor or fair condition in 1997 assessments are rehabilitated to good condition, replaced, or removed

Baseline: FY97 Inventory

Performance Indicator: Classification

Desired Condition: Good,Replaced,or Removed
Unit of Measure: Number of Housing Units

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the number of Yellowstone National Park employee housing units listed in poor or fair condition is reduced from 343 in FY1997 to 177.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	343	
Status in Base Yea	343	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	IVa5	IVa5	IVa5	IVa5	IVa5
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	308	273	238	203	177
	Actual	294	0	0	0	0
Employee FTE	Projected	0	0	0	0	0
	Actual:	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual.	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected.	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual.	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Goal Detail Report

Servicewide Goal Number IVa5

Author Comments

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVa5	2002	<None>	<None Selected>		
IVa5	2003	<None>	<None Selected>		
IVa5	2004	<None>	<None Selected>		
IVa5	2005	<None>	<None Selected>		
IVa5	2001	Exceeds	<None Selected>	The goal was that the Yellowstone National Park housing units listed in poor or fair condition is reduced to 308. The goal was exceeded for 2001. The number of housing units with interior or exterior conditions rated as poor, fair, or worse was 294 as of 30 September 2001. The condition was improved largely through the use of Housing Initiative funds to replace trailers and to upgrade housing units. The condition improved through a combination of interior renovation and exterior upgrades	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IVa6A

Park/Program Abbreviation YELL

Organization Code 1570

Region IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: . By September 30, 2005, the NPS employee lost-time injury rate will be at or below 4.49 per 200,000 labor hours worked (100 FTE).

Baseline: Fiscal Year 1992-1996 Average

Performance Indicator: Employee Lost Time Injury Rate

Desired Condition: Reduced

Unit of Measure: Incident Rate

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the number of Yellowstone Naitonal Park employee-lost-time injuries is reduced from the FY1992-FY1996 five-year annual average of 19 to 14

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	3.95	3.95
Status in Base Yea	3.95	0

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IVa6A	IVa6A	IVa6A	IVa6A	IVa6A
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	19	18	16	15	14
	Actual:	11	0	0	0	0
Employee FTE	Projected	0	0	0	0	0
	Actual	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Goal Detail Report

Author Comments

Servicewide Goal Number IVa6A

[illegible]

Reviewer Comments

[illegible]

Goal Contact Comments

[illegible]

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVa6A	2001	Exceeds	<None Selected>	This information is obtained from the Safety Management Information System (SMIS). The report is obtained based on the injury date We are now using the SMIS reports by injury date and it is possible that some injuries are not yet in the system.	
IVa6A	2002	<None>	<None Selected>		
IVa6A	2003	<None>	<None Selected>		
IVa6A	2004	<None>	<None Selected>		
IVa6A	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IVa6B

Park/Program Abbreviation: YELL

Organization Code: 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: : By September 30, 2005, The servicewide total number of hours of Continuation of Pay (COP) will be at or below 51,100 hours.

Baseline: Fiscal Year 1992-1996 Average

Performance Indicator: Continuation of Pay (COP) Hours

Desired Condition: Reduced

Unit of Measure: Hours

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the Yellowstone National Park total number of hours of Continuation of Pay (COP) is reduced from the FY1992-FY1996 five-year annual average of 1,379 to 1,213

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	1379	1379.2
Status in Base Yea	1379	0

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IVa6B FY 2001	IVa6B FY 2002	IVa6B FY 2003	IVa6B FY 2004	IVa6B FY 2005
Performance	Projected:	1379	1340	1300	1250	1213
	Actual:	848	0	0	0	0
Employee FTE	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Author Comments

Servicewide Goal Number IVa6B

10/30/01--I don't see the problem causing the red light

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph
IVa6B	YELL	106	Annual Performance Target is not consistent with information in Baseline or Status in Base Year

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVa6B	2002	<None>	<None Selected>		
IVa6B	2003	<None>	<None Selected>		
IVa6B	2004	<None>	<None Selected>		
IVa6B	2005	<None>	<None Selected>		
IVa6B	2001	Exceeds	<None Selected>	Continuation of pay hours continued their positive downward trend in FY2001	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** IVa7

Park/Program Abbreviation: YELL Organization Code 1570

Region IM

Year to Complete Goal 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, 100% of line-item projects funded by September 30, 1998, and each successive fiscal year, meet 90% of cost, schedule and construction parameters

Baseline: The total number of line-item park construction projects identified and funded

Performance Indicator: Construction Projects

Desired Condition: Meet Target

Unit of Measure Percentage

PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, 100% of Yellowstone National Park line-item construction projects funded by September 30, 1998, and each successive fiscal year, meet 90% of cost, schedule, and construction parameters

	Uncertified Data	Certified Data
Total Number of Units in Baseline.	8	
Status in Base Yea	8	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IVa7 FY 2001	IVa7 FY 2002	IVa7 FY 2003	IVa7 FY 2004	IVa7 FY 2005
Performance	Projected:	1	3	5	7	8
	Actual:	1	0	0	0	0
Employee FTE	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Author Comments

Servicewide Goal Number IVa7

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph
IVa7	YELL	106	Annual Performance Target is not consistent with information in Baseline or Status in Base Year

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVa7	2001	Met	<None Selected>	The goal was that 100 percent of Yellowstone¿s line item projects funded by September 30, 1998, and each successive year, meet 90 percent of cost, schedule, and construction parameters The goal was met for 2001 From 1998 to 2000, the only Line Item construction project that was complecely funded was the Old Faithful Wastewater Treatment Facility. The project is on schedule and on budget at this time. There was Line Item funding for the Norris Water and Wastewater Treatment Facilities in 2001, but it has to be combined with Line-Item funding in 2002 to be a complete package. The Norris project is on schedule to be awarded in 2002 with the combination of 2001 and 2002 Line Item funding.	
IVa7	2002	<None>	<None Selected>		
IVa7	2003	<None>	<None Selected>		
IVa7	2004	<None>	<None Selected>		
IVa7	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Region Name: INTERMOUNTAIN REGION

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** IVb1

Park/Program Abbreviation YELL Organization Code 1570

Region IM

Year to Complete Goal 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, Increase by 44.7% the number of volunteer hours [from 3.8 million hours in 1997 to 5.5 million hours]

Baseline Fiscal Year 1997 Level

Performance Indicator. Volunteer Hours

Desired Condition. Increase Unit of Measure Hours

PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the number of Yellowstone National Park volunteer hours is increased from 43,283 in FY1997 to 85,000 hours.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	43283	
Status in Base Yea	43283	

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVb1	2002	<None>	<None Selected>		
IVb1	2003	<None>	<None Selected>		
IVb1	2004	<None>	<None Selected>		
IVb1	2005	<None>	<None Selected>		
IVb1	2001	Exceeds	<None Selected>	Yellowstone's VIP program continues to be a strong contributing factor in the overall operation of the park, especially during the summer months. Approximately 300 individuals and groups volunteer their time working in every park division If Yellowstone's operating budget were ever to be commensurate with operational costs and more housing could be obtained, the VIP program could contribute even more than it does now Yellowstone receives hundreds of volunteer requests annually from interested individuals both from the U S and abroad	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION **Servicewide Goal Number:** IVb2A

Park/Program Abbreviation YELL Organization Code 1570

Region IM

Year to Complete Goal 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, cash donations are increased by 3.6% [from $14 476 million in 1998 to $15 million]

Baseline FY 1998 Level

Performance Indicator Cash Donations and Cash Grants from all Sources

Desired Condition Increase Unit of Measure. Dollars

PARK/PROGRAM DETAILS Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal By September 30, 2005, cash donations to Yellowstone National Park increase from $82,506 in FY1998 to $300,000.

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	82506	
Status in Base Yea	82506	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	IVb2A	IVb2A	IVb2A	IVb2A	IVb2A
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected	85000	150000	200000	250000	300000
	Actual.	207242	0	0	0	0
Employee FTE	Projected	0	0	0	0	0
	Actual.	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Author Comments

Servicewide Goal Number IVb2A

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

RUNDATE: 02-NOV-2001
RUNTIME 10 37 AM EST

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVb2A	2002	<None>	<None Selected>		
IVb2A	2003	<None>	<None Selected>		
IVb2A	2004	<None>	<None Selected>		
IVb2A	2005	<None>	<None Selected>		
IVb2A	2001	Exceeds	<None Selected>	Yellowstone is grateful for the tangible support received from many individuals, from the small out-of pocket contribution added to a donation box to the six figure check offered by a generous benefactor	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IVb2B

Park/Program Abbreviation: YELL

Organization Code: 1570

Region: IM

Year to Complete Goal: 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, the value of donations, grants, and services from Friends Groups and other organizations is increased to $50 million.

Baseline: FY 1997 Level

Performance Indicator: In-Kind Donations from Friends Groups and other Non-profit Support Organizations

Desired Condition: Increase

Unit of Measure: Dollars

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the cash value of in-kind donations, grants, and services to Yellowstone National Park by the Yellowstone Foundation and other organizations is increased from $208,843 in FY1997 to $1,932,000

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	208843	
Status in Base Yea	208843	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	IVb2B FY 2001	IVb2B FY 2002	IVb2B FY 2003	IVb2B FY 2004	IVb2B FY 2005
Performance	Projected:	300000	800000	1000000	1500000	1932000
	Actual:	1560000	0	0	0	0
Employee FTE	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVb2A	2001	Exceeds	<None Selected>		
IVb2A	2002	<None>	<None Selected>		
IVb2A	2003	<None>	<None Selected>		
IVb2A	2004	<None>	<None Selected>		
IVb2A	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

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Servicewide Goal Number IVb2B

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roblem Paragraphs

vicewide Goal No.	PGIN	Problem ID	Problem Paragraph

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IVb2C

Park/Program Abbreviation: YELL

Organization Code 1570

Region IM

Year to Complete Goal 2005

DESCRIPTION OF:

Servicewide Goal: By September 30, 2005, The value of donations, grants, and services from Cooperating Associations is increased by 35% [from $19 million in 1997 to $25.6 million]

Baseline: FY 1997 Level

Performance Indicator: Value of Donations from Cooperating Associations

Desired Condition: Increase

Unit of Measure: Dollars

PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the cash value of in-kind donations, grants and service to Yellowstone National Park from the Yellowstone Association is increased from $490,648 in FY1997 to $539,713

	Uncertified Data	Certified Data
Total Number of Units in Baseline:	490648	
Status in Base Yea	490648	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IVb2C FY 2001	IVb2C FY 2002	IVb2C FY 2003	IVb2C FY 2004	IVb2C FY 2005
Performance	Projected	500000	510000	520000	530000	539713
	Actual	475268	0	0	0	0
Employee FTE	Projected	0	0	0	0	0
	Actual	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual.	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual.	0	0	0	0	0
ONPS Other	Projected	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected.	0	0	0	0	0
	Actual.	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVb2B	2003	<None>	<None Selected>		
IVb2B	2002	<None>	<None Selected>		
IVb2B	2004	<None>	<None Selected>		
IVb2B	2005	<None>	<None Selected>		
IVb2B	2001	Exceeds	<None Selected>	This includes the $3K for Night Sky programs from the Museum of the Rockies, a WY Trails Program Grant to Maintenance for $15,036 50, and a $7,200 float line (fish research net) from the State of Michigan. Significant YPF donations/fund raising efforts included $532K for museum collections acquisitions, $268K for visitor education/information projects, $164K for fleet and equipment replacement, $163K for resource/research projects, and $57K safety/maintenance projects The single largest of these was the $500,000 acquisition of the Davis collection for the Yellowstone Museum and Archives	

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Author Comments

Servicewide Goal Number IVb2C

Actual cash donations from YA are reported under goal IVb2a because the cash is deposited in the park s 600 PWE accounts The amount of the cash donations is therefore subtracted from the amount shown in the Cooporating Association s annual report to reflect the actual cash value of in-kind donations

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No.	PGIN	Problem ID	Problem Paragraph

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVb2C	2002	<None>	<None Selected>		
IVb2C	2003	<None>	<None Selected>		
IVb2C	2004	<None>	<None Selected>		
IVb2C	2005	<None>	<None Selected>		
IVb2C	2001	Did Not Meet	Overestimated performance capability	The Yellowstone Association is the park's primary partner in providing education to park visitors The Yellowstone Association provides financial support for educational and scientific programs and projects in Yellowstone National Park In FY01 the Yellowstone Association supported the development of a new film, Yellowstone A Symphony of Fire and Ice, as well as other projects This goal was measured by tracking the value of in kind donations from the park's cooperating association in FY01. Although the amount granted appears to not have met the goal expectation, an additional $112,000 was committed to park projects that could not be completed in FY01	No remedial action is necessary Had the $112,000 that was committed actually been paid out, the goal would have been met It is likely that we will exceed the goal next year

Number of Goals Shown For Park: 5

Region Name: INTERMOUNTAIN REGION

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

Performance Management Data System

BASE INFORMATION

Servicewide Goal Number: IVbX

Park/Program Abbreviation: YELL   Organization Code: 1570

Region IM

Year to Complete Goal 2005

DESCRIPTION OF:

Servicewide Goal: . By September 30, 2005, The number of projects satisfactorily completed by partners under formal agreement that protect park resources or serve the park visitors is increased by [park-determined percentage]

Baseline: Park determines Base year

Performance Indicator: Projects

Desired Condition: Satisfactorily completed   Unit of Measure: Each Project

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PARK/PROGRAM DETAILS

Park/Program Goal Identification Number: YELL

Park/Program/Office Long-term Goal: By September 30, 2005, the number of projects successfully completed by Greater Yellowstone partners under formal agreements that protect the resources and serve the visitors of Yellowstone National Park is increased from one in FY1999 to ten.

	Uncertified Data	Certified Data
Total Number of Units in Baseline	1	
Status in Base Yea	1	

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number	IVbX	IVbX	IVbX	IVbX	IVbX
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected	1	3	5	8	10
	Actual	0	0	0	0	0
Employee FTE	Projected	0	0	0	0	0
	Actual	0	0	0	0	0
Non-NPS FTEs	Projected:	0	0	0	0	0
	Actual	0	0	0	0	0
Direct Costs						
ONPS Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Donations	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Totals:	Projected:	$	$	$	$	$
	Actual:	$	$	$	$	$

Goal Detail Report

Author Comments

Servicewide Goal Number IVbX

Reviewer Comments

Goal Contact Comments

Problem Paragraphs

Servicewide Goal No	PGIN	Problem ID	Problem Paragraph

End of Year Report

Region Name: INTERMOUNTAIN REGION

Park: YELL

Goal	Year	Status	Reason	Performance Comments	Problem Comments
IVbX	2001	<None>	<None Selected>		
IVbX	2002	<None>	<None Selected>		
IVbX	2003	<None>	<None Selected>		
IVbX	2004	<None>	<None Selected>		
IVbX	2005	<None>	<None Selected>		

Number of Goals Shown For Park: 5

Number of Goals Shown For Region: 5

Number of Goals Shown For Report: 5

SUPERINTENDENT'S ANNUAL NARRATIVE
FY2001 HIGHLIGHTS

INTERPRETATION

It has been another extremely productive year in the Division of Interpretation at Yellowstone National Park. Several new program series were added; significant progress was made on two major visitor center construction projects and associated exhibits; an online, curriculum-based educational program was launched; and major wayside exhibit, film, and publication projects were completed.

Personal Services
While parkwide visitation was down approximately 2.5 percent, attendance at formal interpretive programs increased approximately 11 percent to over 212,000. We received an unusually high number of complimentary letters and comments on the quality of interpretive programs and staff this year. Fifty percent of the positive comments on the 2001 visitor survey cards specifically dealt with interpretive programming, which represents only six percent of the park budget.

The ***Yellowstone Gateway Community Outreach Program*** continued to grow in scope and impact. This year, six district interpreters attended 85 meetings and events in gateway communities including Jackson, Cody, West Yellowstone and Bozeman—developing positive, mutually respectful and beneficial relations with the communities.

We initiated a fee interpretation program to allow us to once again offer longer hikes that had been discontinued in the early 1990s due to budget cuts. The ***Ranger Adventure Hiking Series*** was a tremendous success—we served over 700 individuals in the eight-week pilot program and received many favorable letters and comments from the public.

We initiated a ***Bear Safety Education Program*** (funded by Yellowstone Park Foundation). A park interpretive ranger roved campgrounds, pullouts and provided evening campfire programs on bears in Yellowstone. He responded to 87 "bear jams" and contacted approximately 8,000 visitors. We developed and printed 35,000 "bear etiquette" trading-style cards to give visitors "fast facts" about proper etiquette in bear country.

Interpretive program partnerships were expanded in several West Yellowstone venues including the Grizzly Discovery Center, the new Yellowstone History Museum, and we increased our summer and winter public program offerings at the ***West Yellowstone Interagency Visitor Center***. The programs were very well received by visitors as well as merchants in West Yellowstone. We worked with the Bozeman-based ***Museum of the Rockies*** to continue a successful series of summer programs focusing on night sky values.

We initiated and worked with the University of Delaware and Indiana University on two different public surveys relating to the effectiveness of interpretive programs and media at Yellowstone. Results will be used to continue our effort to maintain development of progressive, high quality, and relevant programs for the public.

The Division of Interpretation placed an added emphasis on diversifying our workforce this year to help reach GPRA Goal IVa4B. As a result, we exceeded our former best effort and hired five minority park interpreters (7 percent) and forty-three women (59 percent). An ongoing partnership with Unilever Corporation and the Minnesota School of Environmental Studies provided four high-quality internships in the park.

Yellowstone National Art Trust (YNAT), new 501c (3) nonprofit arts organization was established to promote, administer and carry out an arts program and continues to develop a fine art collection for the Park. A General Agreement was developed and signed in May, establishing and describing the relationship between YNP and Yellowstone National Art Trust. The YNAT was publicly announced and launched at a ceremony in May at the Old Faithful Inn.

Formal Education

We completed national and state science standards curriculum correlations for our residential education program: ***Expedition: Yellowstone!.*** The program continues to be extremely popular with gateway community schools. Current facilities limitations result in our turning away 60 percent of the paying school groups who request participation in this program.

We launched Yellowstone's first ***Electronic Field Trip (EFT)*** program series. The first two online programs (Yellowstone History and Fire in Yellowstone) were presented in October and November. Approximately 15,000 students registered and participated in the interactive online presentations, representing 47 states and 10 countries. Students who registered received lesson plans and other materials in advance. Countless others participated without advanced registration. Nearly 300 questions were emailed in and answered online by several staff members. The program will be expanded next year.

Planning & Media

Major planning for the ***Old Faithful Visitor Education Center*** continued along several tracks. Onsite meetings and correspondence continued with Wyoming SHPO; the Exhibit Theme Concepts Plan was completed; several funding proposals for the project were completed; personal presentations to prospective funders were made; and design direction was given to the architects. Yellowstone Park Foundation had raised approximately $7million of the $23million needed project funds by the close of the year.

Significant progress was made on the ***Canyon Visitor Education Center*** building and exhibit development. This project involves a major rehabilitation and expansion of the visitor center and the development of state-of-the-art exhibits, audio-visuals, and other interactive media on the park's geologic story. The 50 percent Design Development phase of the building was completed, and we expect to complete all building design work and construction drawings by summer 2002. Construction is expected to begin in spring 2003 and the building should be completed by the end of 2004. The project is a large, multi-year undertaking, done in close collaboration with the U.S. Geological Survey and academic institutions that have been involved with geologic research in the park for many years.

Two versions of a major film on the hydrothermal features of Yellowstone were completed. ***Yellowstone–A Symphony of Fire and Water*** is a high-definition, wide-screen, surround-sound film that explains the uniqueness and wonder of Yellowstone as the last unimpaired reserve for hydrothermal features on Earth.

We completed the design, development and oversaw the fabrication and installation of 34 wayside exhibits in the park. A large series of exhibits were installed in the Old Faithful area and focused on the hydrothermal features of the park while another set talked about wildlife issues in Yellowstone's Northern Range.

After more than 15 years in development, Yellowstone's first ***Official National Park Handbook*** was completed and made available to the public as a sales item. The Yellowstone handbook provides an overview of the natural and human history of the park and issues related to its management.

We worked with Yellowstone Association staff to make the ***Yellowstone Resources and Issues Handbook*** available to the public as a sales item. This is an annual publication of the Division of Interpretation. While its primary purpose is to provide a concise reference manual and update for summer seasonal interpretive staff, it has become a popular and requested item by park partners and friends.

National Association for Interpretation awarded Yellowstone National Park a first place prize in a nation-wide Publications Competition for our newly redesigned ***Trail Guide Series***. This is a prestigious competition that includes participation from national, state, regional, and local agencies as well as private providers of interpretive products and services.

Cooperating Associations

Yellowstone Association (YA) continued its significant levels of financial and programmatic support for the park. Total aid to the National Park Service was approximately $566,646, including trail guide printing, newspaper and library support, and special interpretive and research projects. This year, YA developed a formal partnership with Amfac to offer "***Lodging and Learning***" programs. These multi-day, in-depth, year-round programs combine YA's expert instructors with Amfac's excellent hospitality services to provide a very high quality field-based educational experience for participants.

PLANNING AND COMPLIANCE

In fiscal year 2001, the Planning Office's focus was on winter use, roads, the Heritage and Research Center, partnerships, housing, restrooms and a contractor camp.

Winter Use

Planning office staff participated in all aspects of the winter use planning process, working closely with Grand Teton National Park personnel as well as staff from the Washington Office, Solicitor's Office, and the Secretary's Office. The Final Winter Use Plan and Final Environmental Impact Statement were completed in October, and a Record of Decision was signed in November. Draft regulations were published in December, and final regulations were completed in January 2001. A 60,000 page administrative record was compiled to document the winter planning process. Advice was provided to Justice Department and Solicitor's Office attorneys on the terms of a settlement agreement and cooperating agency agreement in response to a lawsuit brought by the International Snowmobile Manufacturers Association and the State of Wyoming, among others. Planning Office staff helped with estimates and timelines and began working on a Supplemental Environmental Impact Statement on winter use.

Staff also assisted with a marketing workshop held in December 2000, the Clean Snowmobile Challenge 2001 held in March, and a Snowmobile/Wildlife Monitoring Protocol workshop that was held in April. Staff oversaw three on-going winter monitoring projects. Planning Office staff also worked with the Idaho National Engineering and Environmental Laboratory and other partners on development of a multi-season, multi-fuel vehicle for use in national parks.

Road Improvements

Environmental assessments for the Canyon to Fishing Bridge (Hayden Valley) road rehabilitation project and the Canyon Junction to Tower Junction (Dunraven Pass) road reconstruction project were prepared for release in October 2001 and September 2001, respectively. For the latter project, 140 comments were received on the assessment. At year's end formal consultation with the U.S. Fish and Wildlife Service was underway for the project. At issue are the removal of mature whitebark pine along the road corridor and the impacts a wider road could have on grizzly bear mortality.

Planning and design work continued on the Canyon Rim Drives project in 2001 which is scheduled for construction in 2005, and initial planning for the Norris to Golden Gate section of road commenced in 2001. This major reconstruction project has an expected construction award in 2007.

Heritage and Research Center

Planning Office staff worked as part of a team, including the Yellowstone Center for Resources and the Maintenance Division to develop concept plans and compliance documents for the proposed Heritage Center. A construction contract is scheduled to begin in late 2002.

Accessibility

The Planning Office responded to numerous inquiries and requests regarding accessible facilities and programs in the park. Many improvements were made in the Mammoth campground with input from planning staff. Five existing campsites were made accessible, ramps were added to two existing restroom buildings, and accessible fire rings and picnic tables were purchased and installed in the new accessible campsites.

Partnerships

A number of the partnership efforts are outgrowths of the Greening of Yellowstone effort. They include the Greater Yellowstone/Teton Clean Cities Coalition that is promoting introduction of alternative fuels in the Greater Yellowstone Area. That coalition has helped the park move forward with biodiesel and ethanol applications as well as exploring use of liquefied and compressed natural gas. Planning staff sat on the steering committee and attended the meetings and helped revise and update Yellowstone's portion of the plan. Staff participated in a fuel cell workshop in Billings in July, and follow-up meetings to explore how fuel cell technology could be brought to the park.

Staff continued to work with the Western Transportation Institute on Intelligent Transportation Initiatives in the Greater Yellowstone Area and this year served as chair of the steering committee. The Automatic Vehicle Identification Project at our North and Northeast Entrances is one of several Greater Yellowstone Area projects related to intelligent transportation.

The park's partnership with the Idaho National Engineering and Environmental Laboratory continued during the year. Aside from multi-season vehicle development noted above, Yellowstone and Grand Teton are also participating in the Greater Yellowstone Works project that is taking a systems approach to evaluating energy, transportation, infrastructure, and information in the Greater Yellowstone Area. Yellowstone's pilot project is Canyon Village.

Gallatin County MOU meetings continued in 2001, which involve sharing information on land use issues in the county. Also in 2001, the park continued to work with the Yellowstone Heritage Trust, the Yellowstone Park Foundation, and other partners to explore land protection initiatives in the Greater Yellowstone Area.

Other projects

An environmental assessment for the Canyon Contractor Camp was released in September 2001, and a Finding of No Significant Impact was signed in November. This project was begun by park crews late in 2001 and will continue in 2002.

A new restroom in Mammoth was under construction at year's end. Planning Office staff worked with the Maintenance Division, Protection, and Cultural Resources staff to complete the planning and compliance. A Finding of No Significant Impact was signed May 9, 2001.

The Slough Creek Campground Rehabilitation Environmental Assessment was released for public review April 23, 2001, and the Mammoth Housing Plan (released in draft in 1997) was revised (rewritten) to reflect findings from the Servicewide Housing Needs Assessment.

The Planning Office cooperated with the Fire Cache on beginning the Wildland-Urban Interface Environmental Assessment to reduce hazard fuels in the vicinity of the Lake, Northeast, and East developed areas and backcountry cabins.

Planning staff advised and educated other park employees about the planning and compliance process and assisted park staff with the preparation of 18 projects in FY 2001 under the Resource Council process.

John Sacklin spent five weeks in the People's Republic of China in October 2000 and May 2001 assisting The Nature Conservancy and the Deqin County and Lijiang Prefecture governments on visitor-related planning for the Conservancy's Yunnan Great Rivers Project. The project area is in the Yunnan Province of southwest China and is focused on preserving one of the world's most biologically diverse areas while providing for tourism-based economic opportunity.

In personnel changes, Pam Novitzky joined the planning office as a natural resource specialist in a term position; she was subsequently converted to permanent less-than-full-time. Linda Miller joined the office as a temporary planning assistant helping with the winter use issue, and was converted to a term position.

YELLOWSTONE CENTER FOR RESOURCES

With an FY2001 budget of $3,970,00 and 58.29 full-time-equivalent employees, the Yellowstone Center for Resources made valuable contributions in protecting and understanding Yellowstone's natural and cultural treasures.

Natural Resources

In December, the record of decision for the long-range bison management plan and environmental impact statement was signed. This plan is designed to preserve the largest wild, free-ranging population of bison in the United States while minimizing the risk of brucellosis disease transmission (between bison and cattle) to protect the economic interest and viability of the livestock industry in the State of Montana. By allowing bison the opportunity to seek critical winter range outside the park, the plan reflects a commitment on the part of the agencies to end the unnecessary killing of bison outside Yellowstone National Park. It is the result of more than eight years of negotiation and seven months of mediation between the federal agencies and the State of Montana.

Since reintroduction, wolves have flourished in the Greater Yellowstone Area. Beginning with 31 animals brought from Canada in 1995 and 1996, wolves now number approximately 220 in 21 packs, but only 14 of these are considered breeding pairs. The countdown to federal delisting began in 2000 when breeding pairs reached 30 in the 3 recovery areas; 2001 was another countdown year with 35 breeding pairs, further ensuring the population's ultimate recovery.

To strengthen the long-term monitoring of volcanic and earthquake unrest in the Yellowstone National Park region, the U.S. Geological Survey (USGS), Yellowstone National Park, and University of Utah entered into an agreement in 2001 to establish the Yellowstone Volcano Observatory (YVO). The new partnership provides for improved collaborative study and monitoring of active geologic processes and hazards of the Yellowstone volcanic field and its caldera, site of the largest and most diverse collection of natural thermal features in the world. It

will also allow for better interpretation of geologic events because park staff can access real-time data online.

Yellowstone's resident Trumpeter Swan population continues to show signs of a population at risk. Events over the last several years have led to a reduction of breeding swans in the greater Yellowstone and low numbers of fledged cygnets in the park, causing serious concern. The number of adult swans in Yellowstone has declined over the years and currently stands at 17 individuals.

Yellowstone's war against the non-native lake trout in Yellowstone Lake escalated in 2001 when the fishery staff launched a new boat that more than doubles their gillnetting potential, setting out 6,000 feet of net each trip. The results in 2001 were notable as gillnetting yielded 15,496 lake trout from Yellowstone Lake. But in a body of water that covers 139 square miles and is up to 390 feet deep, reducing the lake trout population still poses a daunting challenge. Since 1995, gillnetting has removed more than 43,400 lake trout. Anglers have also contributed substantially in the removal, having taken over 10,000 lake trout between 1995-2000. With threats also posed by other non-native organisms -- the parasite that causes whirling disease and the New Zealand mud snail -- in 2001 all of Yellowstone's native fish species throughout the park were placed under the catch-and-release angling policy for the first time.

With the federal listing of the lynx as a threatened species in the conterminous U.S., a multi-year survey was initiated in 2001 to determine if lynx are present in Yellowstone National Park. The survey utilizes three detection methods: ground-based snow tracking; airplane-based snow tracking; and hair-snares. In total, fieldwork for the survey includes three winter and three summer-fall seasons, between October 2001 and October 2003.

In partnership with Grand Teton National Park, Bighorn Canyon National Recreation Area, and the Rocky Mountains Cooperative Ecosystem Studies Unit, Yellowstone produced a plan to complete inventories of vertebrates and vascular plants in the three parks. The inventory effort is the first step in a long-term monitoring program for the parks, and is part of the newly launched service-wide Natural Resource Challenge.

Cultural Resources

Exciting new discoveries were made at the Osprey Beach site, a 9,500-year-old campsite on the shores of Yellowstone Lake—the oldest known site of human occupation found to date in Yellowstone National Park.

The park's branches of cultural resources and landscape architecture worked together to research and evaluate a small planned cultural landscape at Apollinaris Spring. In future years, the site may be restored to its original grandeur. They also developed a planting policy for the residential areas at Fort Yellowstone/Mammoth Hot Springs and other park housing areas, as an early step toward developing a cultural landscape plan for the area. And the branches worked together with other interested park staff to successfully prompt the park to purchase eight historic White Motor Company buses for assignment to the park's hotel and transportation concessionaire for future visitor use.

The park's historic architect and regional office staff updated information on the Lamar Buffalo Ranch Historic District (7 structures), the Yellowstone National Park Transportation Company Historic District (20 structures), the Bechler River Soldier Station Historic District (7 structures), and the Mammoth Hot Springs Historic District (206 structures). Work was nearly completed on the Roosevelt Lodge Historic District (151 structures) and was begun on the Lake Historic District (approx. 70 structures.)

In a typical year, more than 10,000 items may be added to the museum collection alone, including photographs, historic objects, archeological artifacts and natural science specimens. The museum collection now contains over 300,000 items, but less than half of these are cataloged. In recent years, NPS backlog catalog funds have enabled the park to catalog several thousand items per year. In FY2001 a total of 3,115 objects were catalogued: 1,399 cultural objects, 8 natural history objects, and 1,708 herbarium specimens.

In FY2001the park's temporary cultural anthropologist nearly completed consultations (required under the Native American Graves Protection and Repatriation Act, NAGPRA) with numerous American Indian tribes on the ultimate treatment of traditional burials and associated funerary items now associated with the park's museum collection. She also completed a prior commitment to write an ethnographic assessment for Capitol Reef National Park while investing significant time assisting Yellowstone with bison management planning and associated tribal consultations.

The park Superintendent, YCR staff, and several division chiefs participated in meetings with representatives of Wyoming State Historic Preservation Office (SHPO) and affiliated Native American tribes, including a delegation of entire tribal council of Lower Brule Sioux. This unique event in the park's history was gratefully acknowledged by the tribal chair in testimony to U.S. Congressional representatives. The cultural resource staff also worked with the chief ranger and visitor services personnel to revise the park's fee waiver policy for affiliated tribal members visiting Yellowstone for traditional and ceremonial purposes—a decision which has already been praised by nearly a dozen tribal affiliates.

Significant progress was made toward completion of the park's three-volume Historic Resource Study. A regional historian previously completed one volume, *The History of the Construction of the Road System in Yellowstone National Park, 1872-1966. The History of Concessions,* written some years ago, was edited in FY2001, and a contract to a Montana State University professor was arranged through the Rocky Mountain CESU to update the *History of Administration*, also written some years ago. Plans are to complete and print user-friendly and well-illustrated versions of these latter two volumes in FY2002-03, and they will be updated in FY2002-2003. This history will help park staff evaluate, interpret, and manage historic structures. The new partnership with the MSU History Department should help in establishing additional history programs to benefit the university, the park, and the public.

Cultural resource staff facilitated nomination of Fort Yellowstone National Historic Landmark and Mammoth Hot Springs Historic District to WASO and the advisory board, and shepherded the listing of the Queen's Laundry Bath House on the National Register of Historic Places—the first new listing for Yellowstone in 10 years.

The Branch of Cultural Resources (BCR) assisted in planning the new Heritage and Research Center and in preparation of successful presentation to the NPS Development Advisory Board, resulting in approval of the $6.1 million-dollar project for FY2002.

BCR staff completed an oral history project on CCC workers in Yellowstone, and worked with the Yellowstone Foundation to acquire important new items for the park collection, including the original park stagecoach ledger from the1890s, and the irreplaceable Jack and Susan Davis Collection--the finest collection of historic Yellowstone memorabilia (postcards, stereoviews, photographs, books, maps, posters, pamphlets, brochures, souvenirs, and other ephemera) known.

Resource Support

The Spatial Analysis Center (SAC) created a spatial inventory of thermal areas, including point locations collected with GPS units and converted into GIS layers, that was continued for the fourth year. Data such as temperature, pH, and conductivity were collected and attached to each point location, along with a digital photograph of the feature. In 2001, 1,513 features in the

Joseph's Coat Area, the Norris-Mammoth Corridor, the Norris Geyser Basin, the Lower Geyser Basin, and the Lone Star Geyser Basin were added, bringing the total number of sampled features to over 5,400.

A literature search for thermophiles known to occur in Yellowstone was completed. A search of these papers identified 406 different organisms that were discovered from 105 thermal features. The database documents nearly 700 organism/pool combinations. The only thermophile inventory available before this project was completed in 1996 and it only contained information about the 35 organisms that were first discovered in Yellowstone. We have expanded the 1996 inventory to include all known microbes and all thermal features that the microbes have been found in. In addition, we have linked microbe locations to the physical and chemical characteristics of their habitats and to digital photographs of each thermal pool.

YCR published *Yellowstone In the Afterglow: Lessons from the Fires*, written by Mary Ann Franke, and *Wetland Resources of Yellowstone National Park*, by Charles Elliot and Mary Hektner. Now in its second printing, *Yellowstone in the Afterglow*, has proven to be a popular and valuable resource for those wishing to learn more about the events of 1988 and the findings of research that has been conducted since then.

YCR publications produced four issues of *Yellowstone Science*, now in its ninth year and with a circulation reaching over 2,000 individuals and institutions. During FY01, the quarterly publication featured interviews with former Superintendent Mike Finley, Geologist Dr. Robert Smith, and Laura Joss, former cultural resources branch chief. Feature articles addressed Yellowstone architecture, invasive species management in Yellowstone Lake, and rural residential development trends in the GYE since the listing of the grizzly bear for protection under the Endangered Species Act, and archaeological research along the canyons of the Yellowstone River.

The Resource Information Group completed program planning, produced registration and promotional materials, created a web site, and provided logistical support in anticipation of the 6th Biennial Scientific Conference on the Greater Yellowstone, scheduled for October 2001.

In fiscal year 2001, Yellowstone's Research Permit Office authorized 259 research permits to 228 different principal investigators. Of the 259 permits, 40 of those were new research projects initiated in 2001. In 2001 the management of 17 educational projects was transferred to the Division of Interpretation's, Environmental Education Office. Yellowstone has become an increasing popular place to do research, attracting investigators from 47 states and 6 foreign countries. Seventy-three projects were lead by investigators in Montana, 21 by investigators from Wyoming, and 14 by investigators from Idaho. Yellowstone's researchers investigate a variety of subjects. A breakdown by topic is as follows: Air, Soil, and Geology-44, Microbiology-49, Lakes, Stream, and Groundwater-7, Vegetation-35, Wildland Fire-7, Bears-8, Birds-3, Bison-8, Elk and Other Ungulates-9, Fish and Aquatic Life-16, Wolves-5, Other Miscellaneous Wildlife Species-18, Archeology and Paleontology-14, Ethnographic Resources-1, Geographic Information Systems-4, Education and Interpretation-27, Resource Management Planning-4.

SAFETY OFFICE

Our new accomplishments to improve safety in Yellowstone National Park include:

Industrial Hygienist on Staff

Cindy Casalina, an industrial hygienist, was hired to replace the safety manager when he retired. Cindy has the expertise to test for noise levels, asbestos, lead, building air quality and numerous other skills to protect employees in their work areas.

Our continuing improvement efforts include:

Idaho National Engineering and Environmental Laboratory
INEEL conducted a Safety Capability Maturity Modeling in Yellowstone the week of February 26-March 2, 2001. A cross section of employees was chosen to take part in the program. The safety capability maturity approach is used to obtain information about the quality of work practices in four areas: Technical Planning, Project Management, Work Environment Support and Park Safety. Results were obtained from a combination of a questionnaire and focused discussion. Information obtained from interviews and focus groups was organized into main barriers to improving the safety performance of Yellowstone National Park.

Safety Advisory Council
The council has continued to meet and is reviewing and recommending safety policy as well as performing on site inspections. Items were identified to remove some of the barriers to improving safety, namely through improved communications, leadership, attitude and mindset. Safety awards were presented in September, and an awards program to recognize those who identify and suggest solutions for workplace hazards is being developed. A Safety Corner has been added to the employee newsletter, and weekly e-mails on important safety topics have been sent to all employees. The slogan, "Do it Safe, All the Time, Every Time," has been adopted for the year and is included in all correspondence.

Intranet "Safety Matters" Website
The Intranet "Safety Matters" website was maintained and updated in order to offer improved safety and health support to field areas and all employees.

OSHA Partnership
The partnership continues to produce consulting services in industrial hygiene, OSHA compliance, accident investigation and analysis, and communicating and training with field level employees.

Safety Advisory System
The Safety Advisors continue to direct and serve in their local area to assist and guide supervisors, managers, and employees in achieving their safety and health responsibilities.

OSHA Program Teams
These teams continue to produce written OSHA programs, facilitate training in the standard, and evaluate the implemented system for effectiveness. Team leaders have been assigned for fall protection, hearing conservation, confined space entry, respiratory protection, fire prevention and protection, blood borne pathogen, lockout-tagout, youth programs, snowmobiles, ergonomics and Hantavirus.

Safety and Health Training
A major effort was made to meet OSHA training standards in job safety analysis, asbestos, lead, silica, forklift operations, safety management, EPA, flagging, fall protection, ergonomics, confined space, snow grooming, snowmobile operations, wilderness survival, avalanche awareness and prevention, driver improvement, and horsemanship.

Other Significant Safety Accomplishments
- Obligated funds for specific safety needs
- Continued use of the safety concerns system where employees can report a hazard or safety concern to management

The Safety Office continued to strive to protect the health and safety of Yellowstone's employees. The park's goal was defined as continuous safety improvements leading to zero accidents.

PUBLIC AFFAIRS

In fiscal year 2001 the Public Affairs staff consisted of three permanent, full-time employees; one permanent, subject-to-furlough employee; and one term, subject-to-furlough employee. In June 2001 Karen Angermeier left the permanent, subject-to-furlough position of Public Affairs secretary for a position in the division of Interpretation. This position was subsequently converted to full-time and Diane Kline was hired to fill this position in August 2001.

In fiscal year 2001, 91 press releases were issued. These releases addressed controversial and sensitive issues such as fatalities, bison gorings, thermal burns, fugitives, sewage spills, winter use, NEPA projects, fires, the East Entrance closure due to fire, road construction, search and rescue efforts, and bison management. In addition, releases were issued on other, less contentious topics such as the retirement of Superintendent Michael Finley, the appointment of Acting Superintendent Franklin Walker, the departure of Assistant Superintendent Marvin Jensen, visits from Interior secretaries Bruce Babbitt and Gale Norton, and the biennial scientific conference on Yellowstone Lake. In addition to these issues, the Public Affairs staff also addressed numerous Congressional, media and public information requests on such topics as winter use, bioprospecting, bison, grizzly and wolf management, Lake Trout, personnel issues and the park's budget.

In addition to the extensive planning and support involved in the visits of Bruce Babbitt and Gale Norton, the Public Affairs staff assisted with visits from Congressman Holt of New Jersey and Todd Hull, Majority Staff Director for National Parks, Recreation and Public Lands. The Public Affairs staff also played a significant role in the official visit from the Lower Brule Sioux Tribe in planning, attending meetings and touring the park with the tribe.

In preparation for the Olympic torch relay at Old Faithful in January 2002, Public Affairs staff attended planning meetings with the Olympic torch committee beginning in fiscal year 2000 and continuing through fiscal year 2001. In December, the Public Affairs Office sponsored the 12th Annual Christmas Tree Lighting Ceremony for Mammoth and the surrounding communities.

Over 150 requests for commercial filming and photography permits were received in the Public Affairs Office in fiscal year 2001, resulting in the issuance of 74 permits. Extensive planning, monitoring, location scouting and research went into these projects. A considerable amount of time was also spent on filming and photography proposals where no permits were issued. The majority of the permits issued in fiscal year 2001 were for documentaries on topics such as bears, wolves, bison and microbes, while others were issued for travelogues, magazine ads, and soundscapes.

The Public Affairs Office hosted 11groups of foreign dignitaries, representing the countries of China, Japan, Korea, Taiwan, Italy, Guatemala, United Kingdom, Kyrgyz Republic, Uzbekistan, Kazakstan, Argentina, Azerbaijan, Belize, Colombia, Costa Rica, Côte d'Ivoire, Czech Republic, Denmark, El Salvador, Germany, Greece, Guyana, India, Israel, Malaysia, Netherlands, Oman, Saudi Arabia, Singapore, Sri Lanka, Vietnam, Yemen, and Zambia.

MAINTENANCE

The Maintenance Division's workload in 2001 focused on the park's major infrastructure problems - roads, utility systems, buildings, and housing. Much of what was accomplished or, in many cases deferred, was driven by budget concerns that resulted in over 20 status positions being unfilled. Much of the work, outside of the barest of operations, was accomplished with "soft money" funds that could only be used for specific projects. These projects were much needed, but did not, in most cases, help the general day-to-day operations. The lack of a viable operational base and cyclic maintenance program is still increasingly evident, especially in roads. If funding does not increase the new roads that we are constructing with Federal Lands Highway Program (FLHP) funds cannot be properly maintained. Aside from stabilizing major failures, little or no preventative maintenance is occurring.

The lack of staff has put increasingly stressful burdens on the existing staff and some things that are getting accomplished are not receiving correct oversight, follow-up, or documentation. There is a tendency to take care of the problem in the short-term, while the long-term problems get worse and worse. The sewage system at the Norris Geyser Basin has now been shut down for seven years and groundwater and surface water are being impacted by sewage in the Old Faithful area. The Old Faithful sewage plant construction began in 2000, with completion due in 2002, so this problem should be solved.

Yellowstone has made great strides in forming partnerships with other entities, and the Maintenance Division is no exception. The concept that started with the "Greening of Yellowstone" workshop that occurred in 1996 continued in 2001 as the division continued to work with the surrounding states and counties to work to solve problems. This was particularly evident in the air pollution work done with bio-synthetic oils, lubricants, and oxygenated fuel in conjunction with the State of Montana, the Department of Energy, and others, as well as with recycling and composting projects in southwest Montana. After two years of operating prototypes, the park added 25, 4-stroke snowmobiles to their fleet. The park has removed virtually all hazardous cleaning supplies and replaced them with non-polluting substances. With these types of programs, the park has been recognized as a leader in pollution prevention and reuse of resources in the National Park Service. These types of projects have brought the area and the park together and have resulted in benefits for all involved.

The solid waste program continues to make strides with ongoing partnerships with the cities and counties in Southwest Montana. The park is actively participating in the Headwaters Cooperative Recycling Project and is leading the way in the composting study for waste disposal in the area. A municipal solid waste composting facility is scheduled for construction in 2002 in the West Yellowstone area due in part to Yellowstone's participation in the project.

Yellowstone began full implementation of the Facility Management Software System (FMSS) in the Maintenance Division. Seventy-six employees have been trained in the FMSS program and 41 have user name/passwords to the production database. At the close of FY2001, approximately 80 percent of the Maintenance Division had been implemented. The park generated over 2,000 work orders for the year. Utility rates for FY2002 will be established using the data from the FMSS program.

Housing

Minor rehabilitation, painting and heating work was accomplished on the following buildings: # 2, 3, 10B, 70F, 89, 123, 133, 381, 455, 456, 460A,C &D, 490, 491, 531B & D, 569, and 587, and on the following trailers: # 49, 60, 65, 118, 129, 130, and 530.

Portadorm 931 in Mammoth was damaged by fire from contents too close to the electric heater. The unit was cleaned and repaired.

Transahomes 247 and 248 at Northeast were demolished after the completion of the Northeast four-plex.

Construction of a four-plex unit and a two-plex unit at Old Faithful has begun, with occupancy expected late 2002. The units were funded out of the trailer replacement program and replaced substandard temporary housing units.

Work on the Magistrate's house, Bldg. 49, was completed. This was a total rehabilitation project.

The Mission 66 units in Lower Mammoth are having their fuel tanks and heating systems replaced with a propane system. The old fuel oil tanks are also being removed. A few units are being done each year.

Buildings

The old Ranger Station at Old Faithful was relocated to Tower Junction. It was gutted and rebuilt to accommodate the offices for the District Maintenance Supervisor and Ranger. The old Ranger Storage Building (garage) was relocated to Tower Junction to be used as a cover for the district's plow truck.

The warming hut at Fishing Bridge was completely gutted and rehabilitated.

Construction began on a new Contact Station at Lewis Lake with solar power.

A new vault toilet was installed at West Thumb and the old toilet was relocated to the Mammoth Campground. A new foundation was placed and the unit will be finished in 2002.

A public restroom was designed and construction began at Mammoth.

The following buildings received minor rehabilitation, painting or cabinetry work: # 1, 25, 496, 522,523, 534, 480, 481, 482, 483, 485 and the Norris Geyser Basin Museum.

At Sylvan Pass, a new warming hut was purchased and installed for the avalanche crew. Also, an ambulance was fitted with mat-tracks for emergency response for this crew.

Deteriorated logs and railings were replaced at the North Entrance.

The interior and exterior of 11 vault toilets were painted this year.

Bio-Diesel tanks were installed at Old Faithful and at Lake.

Major seismic retrofit work began at Building 38.

Work began rehabbing the interior of the Mt. Washburn view area. This work will be completed in the summer of 2002.

Crevice patrol cabin was rehabilitated. The fiberboard was removed down to the logs. The foundation/floor was supported and stabilized.

The contractor on the Mammoth clinic roof defaulted the contract. The roof was not completed this year.

Replacement of the tile roof on Building 3 was completed and the tile roof on Building 2 was almost completed in 2001. Park forces performed this work.

Utilities
The new Northeast sewage treatment system was completed.

The South Entrance water system was completed in early summer.
Work began on replacing the wooden water tanks at Indian Creek Campground and Lewis Lake Campground. New concrete foundations were poured adjacent to the existing tanks. The tank contractor installed the tanks starting in September. Final hook ups and testing will be completed during start up in 2002. New water lines were installed at Lewis Lake Campground. Final cleanup will be finished in 2002.

The infiltration repair contractor began lining and manhole replacement at Lake and Mammoth. Work will be completed in 2002.

Grounds
A riverbank stabilization project was performed at the seven-mile pullout between the West Yellowstone Entrance and Madison. Barrier railing was constructed, walkways improved and revegetation implemented. A bank stabilization project was also performed at the Gibbon River near Tanker Curve Bridge.

A helispot at Grant Village was constructed.

Part of the old Turbid Lake Road restoration was completed this year with the help of the Montana Conservation Corps.

Ten acres of the Natural Bridge and Lonestar pits were reclaimed and restored as part of the Wyoming Abandoned Mine Lands project.

Ice Box Canyon picnic area design was finalized and boardwalk will be constructed in 2002.

Roads
Phase 1 and 2 of the Madison to Norris road reconstruction began. This involves road and bridge replacement. The road was closed in late August to replace two bridge decks.

Design on the reconstruction of the Dunraven road and the rehab of Fishing Bridge to Canyon continues.

Overlay of 3.5 miles on the Firehole River Drive was completed and an overlay project continues between Indian Creek and Roaring Mountain. A two-mile section of overlay was also placed on the Mammoth to Norris road from Beaver Lake to North Twin Lake.

A ten-mile section of road between Sand Point and Arnica Creek was chip-sealed.

Several sections of damaged guardrails were replaced along the Grant Village to South Entrance Road and between Mammoth and the North Entrance.

Crews re-decked bridges on the Firehole Lake Drive and restored some road shoulders on the project.

Trails
In celebration of National Trails Day, crews performed 15 feet of bridge demolition and site restoration and 2 miles of drainage and erosion control construction and maintenance with a volunteer workforce.

With grant funding assistance from the Yellowstone Park Foundation, construction and installation of 11 culvert-drains and 75 feet of turnpike was completed on the Slough Creek Wagon Road. Drainage installation, erosion control, site reconstruction, rehabilitation and revegetation were performed along a 6-mile section of the road in partnership with Corral Operations, the Youth Conservation Corps and the Montana Conservation Corps.

The Yellowstone Park Foundation also provided grant-funding assistance for work on the Fan Creek Trail. Construction of 100 feet of stepped-rock causeway, .75 miles of reroutes, .5 miles of rehabilitation and revegetation and 4 miles of reconstruction and maintenance was completed in partnership with the Montana Conservation Corps.

In partnership with the Continental Divide Trail Alliance, four miles of drainage and erosion control was installed on Summit Lake Trail.

Construction of 30 feet of turnpike and 3 miles of drain installation and tread reconstruction was completed in partnership with the Montana Conservation Corps with funding assistance from a State of Wyoming Recreational Trails Grant.

The Beaver Creek Project was completed with construction of 1.25 miles of total reroutes, 100 feet of turnpike, 2 miles of drainage installation and erosion control, 60 feet of bridges removed, tread hardening, and site restoration. The Youth Conservation Corps and the Aspen Youth Adventures crews helped complete the project. The Montana Conservation Corps also participated in constructing 45 feet of turnpike and 12 feet of bridges.

Boardwalk construction included projects at Old Faithful and Mammoth as well as work on walks to the Mammoth campground restrooms to provide handicap access. The crew also worked on revegetation, clearing and fencing projects.

Administrative

The Trails Maintenance Supervisor position was filled this year, as was the Grant and Tower District Supervisor positions.

The Crafts Shop Supervisor position and the Administrative Office Support Assistant were also filled.

With the addition of two engineers, design on the larger projects scheduled for future years became a priority.

New subordinate supervisors were hired at Lake and Old Faithful and Work Leaders were hired at Tower and Madison.

VISITOR AND RESOURCE PROTECTION

2001 found our Ranger staff busy, as usual, but significantly short-handed. Many of our protection statistics were at high levels while visitation was down slightly from 2000. Serious crimes (part I incidents) were up nearly 30 percent from last year while part II incidents (misdemeanors and infractions) and overall service and case incidents were down nearly 15 percent for 2000.

This statistical down trend is most likely due to lack of staff as 2001 found Yellowstone with the fewest rangers in the field in the past decade. Due to a variety of transfers and the need to lapse positions to make the budget work for the year, the park suffered in terms of available protection

staff to patrol, protect people and resources and solve problems. Vacancies are common, but the need to lapse positions for months to balance the division budget represents the real fiscal culprit.

Enforcement rangers did handle several interesting cases including wildlife poaching, burglary, crimes of violence and many drug and alcohol cases. Yellowstone was the site of a successful manhunt for two young males from Wisconsin who had stolen a car and severely assaulted an elderly couple while conducting a crime spree from Minnesota to Yellowstone. The two males took off on foot in the park attempting to elude rangers for most of a cool and snowy Labor Day. After an intensive manhunt, our staff, based on a visitor tip, located and safely apprehended the armed and dangerous men.

2001 found our Wildland and Structural fire staffs quite busy. We responded to 260 structural alarms throughout the park and fortunately our pre-suppression systems were successful again this year. We are still not in a position to be able to safely and professionally fight a major structural fire in most sub-districts. Our wildland staff dealt with two major fires within the park this summer and many smaller ones as well. We ordered a Type I team for the Arthur Fire on the east side of the park and we shared burned acreage with the U.S. Forest Service on the north end of the park when the Little Joe Fire blew up later in the summer. Over 10,000 acres burned in the park and approximately 200 Yellowstone employees were involved in our suppression efforts in the park. Additionally, in a variety of roles from IC to Firefighter, we sent out 86 staff to 51 different fires throughout the country during the summer to assist with the nationwide suppression effort.

Our total number of emergency medical incidents for the year was just short of a record year. Each year our staff of 17 Ranger Medics and 55 Ranger EMTs deals with a unique variety of both simple and very complicated injury and illness incidents. Winter and backcountry medical incidents represent our most difficult and problematic emergency incidents to provide patient care. Unfortunately during 2001, we had a record number (8) of thermal immersion incidents. Our Air Force Reserve training program continued and expanded during 2001. Ten Air Force Reserve Medics from Wright-Patterson AFB in Ohio spent two weeks in the park learning how to deal with medical emergencies in an isolated mountainous setting. This program has expanded to other National Park System units and may expand to include Yellowstone's winter season in addition to the summer season.

During 2001 we did in fact set a record with 69 Search and Rescue incidents. This includes everything from a major technical SAR to a 20-minute search for a youngster that wandered away from a campsite. Perhaps the most celebrated case for the year was a young boy who slipped off the Artist Point Trail along the Yellowstone River Canyon and fell about 15 feet before grabbing a small root which prevented him from falling the remaining several hundred feet to a certain death. The boy's parents panicked and were of no help to their nine year-old son who was hanging nearly vertical from the 3/8 inch root crying for help. There were no rangers in the immediate vicinity, but thankfully, quick-thinking bystanders grabbed an electrical extension cord from a motor home in the parking lot and threw it to the boy, helped tie him on and pulled him up to safety.

Protection staff from the park were involved with a variety of interesting projects including; analyzing and improving security systems, assisting the Secret Service with planning and preparation for a safe and secure 2002 Winter Olympics, a National Park Service Wilderness Management Policy review, participating in Nationally Based Incident Management and Fire Management teams and instructing at leadership, SAR, Law Enforcement, Emergency Medical, Outfitter Management and many other conferences and seminars beyond the boundary of the park.

Protection staff managed a series of excellent youth programs again in 2001. Through donations from the Loyal Order of the Moose, 30 students and 12 staff completed over 13,000 hours of service on backcountry trails, campground restoration, building maintenance and more. Further contributions to work here at Yellowstone came from Montana Conservation Corps and the Public Lands Corps. The Student Conservation Association provided 20 students completing over 10,000 hours of service assisting park staff with visitor center operations, geothermal inventorying, backcountry management effort and fisheries operations. Our staff and volunteers together monitored 80 different thermal pools this year and were involved with a variety of cleaning projects; removing items thrown in these pools by visitors that disturb the natural flow of the spring. These items typically include coins, cans and bottles, sticks, rocks and cigarette butts.

Our aggressive weed control and exotic vegetation management program continued to be successful this year. In addition to the thousands of acres in the park that we successfully treated with over 90 percent control efforts, we also provided oversight and assistance to our park neighbors, including the U.S. Forest Service

BUSINESS MANAGEMENT

Formerly the Concessions Management Division, the name has been changed to more closely reflect the scope of the function.

While staffing levels are relatively constant, there has been some reorganization and redescription of positions as a result of the additional responsibilities that accompanied the passage of P.L. 105-391, in the fall, of 1998. Implementing regulations have placed a heavy administrative burden on the National Park Service, much of which was previously accomplished by concessioners.

PFT: Chief Business Management, GS-1101-14, Edna Good
Asst. Chief, Business Management Division, GS-1101-12, Judy Churchwell
Business Management Analyst, GS-1101-12, Mary Murphy
Quality Control Specialist, GS-1101-9, Barb Riley
Quality Control Specialist, GS-1101-9, vacant
Business Management Assistant, GS-1101, 9, Patty Kremer
Administrative Assistant, GS-1101, 7, Debby Young

Data Systems Specialist, GS-1101-9, Paul Norman (TERM, full time)
Civil Engineer, GS-801-11, Mary Hudson (TERM)
Administrative Asst., GS-1101-5/7, Connie Fitzgerald (TEMP, full time)
Sanitarian, GS-11, Fred Pearson (TEMP, full time summer only)

The four major concessioners, the winter operators, and horse outfitters earned in excess of $80 million during the operating season of 2001. A new policy adopted by the Washington office will involve Price Waterhouse Coopers' involvement in developing contracts that gross in excess of $3 million. Business Management staff has spent numerous hours working with these consultants in gathering materials, interpreting planning documents, etc. This will demand even more time as the prospectus development proceeds. A significant portion of the contracting process is completion of the Commercial Services Plan. In addition, Yellowstone's concession operation is a pilot park for development of the Servicewide Facility Management Software System, Concessions Management System, and for Non-appropriated Fund Source (NAFI).

During the year, we completed (through contracts with the private sector) comprehensive condition assessments on 23 of the most significant government-owned structures assigned to Amfac.

Lawsuits filed by Hamilton Stores, Inc., Amfac Parks and Resorts, and the Hospitality Conference, challenged the regulations to implement Concessions Reform. A Summary Judgment in favor of the government is now under appeal.

Amfac Contract Issue:
Because of the major changes caused by implementation of "Concessions Reform" the park was not prepared to issue a new long-term contract for Amfac Parks and Resorts when their contract expired December 31, 2001. A three-year extension was granted, in exchange for a capital investment, by the concessioner, of $8 million for construction of critical concessioner employee housing. The three-year extension allows the continuation of "special accounts" which will result in approximately $30 million during the extension period. Fees are required to be spent on government-owned facilities assigned to Amfac.

Hamilton Stores, Inc
A prospectus for a new 15-year contract was published (the first under the new law) in October 2000. A selection was finally announced January 27, 2002, and resulted in award of the contract to Delaware North Parks Services (Buffalo, NY). Hamilton Stores, Inc. has been operating in Yellowstone since 1915. It is expected that the new concessioner and Hamilton Stores will be involved in arbitration over the value of possessory interest. The new contract is expected to take effect January 1, 2003. Basic services will remain the same, except that the following stores will not operate during the new contract period. Old Faithful Photo Shop and Mammoth Nature Store. During the new contract, the Tower Fall store and the Roosevelt general store will be closed. A new rustic, general store will be constructed near Tower Junction.

Yellowstone Park Service Stations
Operation of the gas stations is accomplished through a Joint Venture (JV) agreement between Amfac Parks and Resorts, Hamilton Stores, and NPS. The JV expires with Hamilton Stores extension December 31, 2002. We have negotiated with Hamilton Stores to obtain their 50 percent ownership in YPSS facilities. By the expiration of the JV, we will have purchased the possessory interest from revenues of the YPSS operations.

Yellowstone Park Medical Services
This contract expires December 31, 2002,and prospectus development is currently underway.

Snowmobile and Snowcoach
Contracts were extended pending resolution of issues associated with the Winter Use Plan. Additional snowcoaches were authorized for both existing operators and new operators utilizing commercial use authorizations.

Horse and Park Outfitters
Contracts have been extended through December 31, 2002; however, the prospectus for new contracts will be published this spring.

ADMINISTRATION

In May 2001 Superintendent Mike Finley selected Joanne Timmins to be the new Yellowstone National Park administrative officer. The Washington office approved the appointment in July. Earlier in the year, while Blaine Flint and Joanne were alternating acting administrative officers,

Mike consolidated the Finance Office and the Contracting Office under Blaine, and the Telecommunications Shop and the Computer Support Services Office under Gary Matthews.

Personnel

The Personnel Office selected two new employees in the spring/summer of 2001. Bette Cates was hired as the payroll coordinator and Sandi LeFevre was hired as a personnel management specialist. The office has nine employees. The staff processed 71 OWCP cases, six retirements, one death in service, one seasonal employee death, 2,600 applications, 94 vacancy announcements, over 2,500 personnel actions, 10 employee relations cases, 5 EO cases, approximately 20 full classification evaluations and 14 consultations with new employees or terminating employees. The office provided 5 mini-seminars on application procedures for about 70 interested individuals.

Among the training highlights of the year were a Supervision Fundamentals training class, and the acquisition by the park of a TEL training unit that allows park employees to participate in long distance learning opportunities sponsored by NPS and other DOI bureaus.

Budget/ Finance/ Cash and Debt Management Office

FY2001was the first full year of operating under the park's new comptroller, Blaine Flint. Blaine headed both the Budget and Contracting Branches and was a welcome addition to the division. Unfortunately, he decided to return to Hill Air Force Base for personal reasons in late 2001. The Cash and Debt Management office operated for the year without filling the supervisor position, as they adjusted staffing in conjunction with the implementation of new automated system for cash reconciliation and deposit. FY 2001 was also the first year for the Servicewide Comprehensive Call (SCC) which brought most budget calls together for the first time with common due dates for project and base budget submissions in the early spring. Financial Management included the usual high volume of document processing, customer support, and tracking of $47.7 million in obligations as well as cash management for $12.6 million in revenues.

Contracting/ Property Management/ Warehouse Operation

A new contracting officer was hired in August 2001. Mark Davidson was named Yellowstone National Park contracting officer after serving a detail to the office from May through July. During the year the office processed 4,482 DI-1's. They awarded a contract for snowmobiles and a sole source contract for an Environmental Assessment Study. The contracting officer worked on getting two new A/E contracts awarded. He awarded and extended numerous agreements. The office made all payments for contracts, purchase orders and agreements promptly. The contracting officer oversaw the hiring of a new employee, a property management technician, who was selected by the general supply specialist. The Property and Warehouse office completed numerous actions, including the annual property inventory. The Superintendent certified the Annual Inventory on September 30. The annual GSA sale was scheduled for September 13, but was postponed for security reasons after the September 11 attack. The sale was rescheduled for November 1.

Telecommunications and Computer Support Services

The Telecommunications shop installed new alarm systems at sewage lift stations at Lake and Madison, and a fire alarm system at Fishing Bridge Museum. The shop also installed a wireless radio system to the Amfac Engineering Office to allow them to monitor Amfac alarm systems. A new repeater was installed on Top Notch Mountain this summer. Additional repeater equipment was installed on Mount Holmes, Purple Mountain, Mount Sheridan, and Coulter Pass, and in West Yellowstone. The office acquired 50 new cellular accounts in 2001, bringing the park total to 350. One new cellular site was added in the park at Old Faithful, and two new cellular antenna towers were installed at Old Faithful and Grant. There are now a total of five cellular sites in the park and three cellular companies providing service. During FY2001 the office successfully converted from AT&T to MCI.

The offices installed Local Area Networks (LAN) in offices in Mammoth and at Lake, and completed Phase III of the Upper Mammoth Cable Project by connecting five more locations. Additional Wide Area Networks (WAN) were installed at the Northeast Entrance, the West Entrance and the Lake Utah Dorm. An additional 100 computers were connected to the Intranet/Internet since last year, for a total of 550 computers in Yellowstone, which have access to the Intranet/Internet. About 80 percent of these were converted to Lotus Notes (the new NPS standard) during FY2001.

Volunteers in Parks

310 volunteers in FY2001 donated a total of 80,772 hours. Of these 27 SCA's donated 12,726 hours.

SUPERINTENDENT'S OFFICE

The fiscal year began with the departure of Assistant Superintendent Marv Jensen and his wife Mary Lynn. Marv headed to Ft. Collins, Colorado to work as the NPS' new soundscapes manager. In January, Superintendent Finley reviewed the applications for the assistant superintendent position, however, the Bush Administration placed a hiring freeze upon all jobs and the assistant position remained unfilled.

Several new issues surfaced over the fiscal year including the planning for a new U.S. Magistrate's courthouse facility to be built in Mammoth, and the startup of overflight tours of the park by a helicopter tour company operated by a local business in Gardiner, Montana.

Superintendent Finley sponsored a farewell party for past Interior Secretary Bruce Babbitt in April and hosted a visit for the new Interior Secretary Gale Norton on May 25.

The Superintendent's office purchased a Mattrack conversion van this year and the Superintendent suggested that division chiefs try them out for the experience of having driven one and to rate its efficiency. The Mattrack conversion van has been used successfully in the parkwide mail courier operation and in the summer as a VIP vehicle for the Superintendent's office.

Superintendent Finley signed a "Sister Park" agreement with Chinese officials from the Sichuan Wolong Nature Reserve in China in February of 2001. Yellowstone and the Chinese Reserve formed this partnership with emphasis on ecotourism and the development of a giant panda reserve.

On Earth Day, the Idaho Engineering and Environmental Laboratory (INEEL) in Idaho, presented Superintendent Finley with a Department of Energy ***Bronze Medal of Exceptional Service*** award for his "leadership with advanced energy system deployments that helped preserve and perpetuate our national parks." Superintendent Finley was also awarded the Director's Award for Superintendent of the Year for Resource Stewardship in June.

Superintendent Mike Finley, his wife Lillie and daughter Devon were given a very warm and entertaining send off at the Mammoth Recreation Hall on Friday, May 18. Over 150 attendees enjoyed a catered meal and appropriate remarks from some of Superintendent Finley's coworkers, friends and partners. Marv Jensen, Yellowstone's previous assistant superintendent was the master of ceremonies. Mike was presented with an award from the Wilderness Society for his work and accomplishments during his tenure at Yellowstone. The staff, the park's partners, and board members of the Yellowstone Park Foundation and Yellowstone Association presented Mike and Lillie with a farewell trip to Cumberland Island, Georgia, and a two nights

stay at the island's Greyfield Inn Resort. Superintendent Finley moved to Atlanta, Georgia to take over the helm of the Turner Foundation, a family/environmental foundation founded by media mogul Ted Turner.

Franklin C. Walker, current superintendent of Saguaro National Park in Arizona entered on duty as acting superintendent June 13. Frank and his wife Judy spent their honeymoon in the park in 1967. His second stint in the park came later in 1977 where he worked as the district naturalist until 1980. Frank then went on to serve as chief of interpretation in Carlsbad Caverns and held his first superintendency at Fort Clatsop National Memorial in Oregon. He then went on to become superintendent at Nez Perce National Historical Park, Idaho.

Acting Superintendent Walker attended meetings with the Lower Brule Sioux Tribe when they visited the park in June, the largest official tribal delegation to come to the park in many years. Frank also hosted visits from the Inspector General's office, the GAO and made numerous trips to Washington D.C. and Denver to discuss the Winter Use SEIS with the Director, Regional Director and their staff.

In July, Acting Superintendent Walker announced that Joanne Timmins had been selected and was approved as administrative officer, Mark Davidson was selected as the park's contracting officer, and Cindy Casalina accepted the position of industrial hygienist. Also in July, GYCC Executive Director Larry Timchak, announced he would be leaving his post and the search began for his replacement.

The Arthur Fire was one of the summer's most spectacular events. The lightening-caused fire triggered numerous complaints, business interruptions, road closures and at times unfriendly press. Acting Superintendent Walker was extremely busy on scene talking to the Cody area business owners, Congressional staff, visitors and employees about Yellowstone's management actions and assistance with fire prevention measures. This fire was only one of many fires during the 2001 fire season.

After the disastrous events of September 11, 2001, the park was put on Level V preparedness alert and extra security measures were taken at Mammoth, Old Faithful and other areas in the park to protect park visitors, employees and resources.

While Frank Walker performed the duties of acting superintendent through the end of the fiscal year and the Assistant Superintendent's position remained unoccupied, the support staff in the Superintendent's office remained unchanged for FY2001. Kerrie McCartney remained as the PFT secretary and Jan Laye as PFT administrative assistant.

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Fiscal Year 2002 ANNUAL PERFORMANCE REPORT
YELLOWSTONE NATIONAL PARK
(October 1, 2001 – September 30, 2002)

Mission Statement

Preserved within Yellowstone National Park are Old Faithful and the majority of the world's geysers and hot springs. An outstanding mountain wildland with clean water and air, Yellowstone is the home of the grizzly bear and wolf and free ranging herds of bison and elk. Centuries-old sites and historic buildings that reflect the unique heritage of America's first national park are also protected. Yellowstone National Park serves as a model and inspiration for national parks throughout the world. The National Park Service preserves, unimpaired, these and other natural and cultural resources and values for the enjoyment, education, and inspiration of this and future generations.

Approved: Suzanne Lewis
Suzanne Lewis, Superintendent

Date: 2/6/03

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Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 13, 2003

Servicewide Goal ID Number: Ia0

Park/ Program Goal ID Number: YELL-01

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 362 (95%) of the 381 self-sustaining and free-ranging wildlife, native fish, and birds identified in Yellowstone National Park as of 1999 are preserved and maintained.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Population Status	Number of species of free-ranging wildlife, native fish, and birds	Self-sustaining	381	381

Projected Performance Target, end of strategic planning period: 362

Projected Performance Target, End of this Fiscal Year 362

Actual Result: 362

Comments Regarding Performance: No evidence of species decline in 2002. Monitored populations of bison, bighorn sheep, mule deer, birds, and elk were within range of natural variation. A research project was initiated to determine the contribution of changing climate, reduction in the beaver population, and elk herbivory to willow decline in Yellowstone's northern range. Yellowstone cutthroat trout continue to be threatened by the introduced lake trout population, whirling disease, and other factors in Yellowstone Lake. Current trend data indicate a steady decline in the population since 1996. However, recent actions taken by NPS to curtail lake trout predation on cutthroat trout look promising. Juvenile recruitment of cutthroat trout appears to be increasing over the last 2 years. Since 1995, over 54,000 lake trout have been removed from Yellowstone Lake. In 2002, our catch per unit effort is half of what it was in 2001. We are hopeful that lake trout removal will allow a large enough increase in recruitment to turn the cutthroat trout population trend around. Ongoing research into the extent of whirling disease and its effects on the cutthroat trout population continue. Studies are underway to determine the effect that the New Zealand mudsnail will have on native trout.

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia0 FY 2001	Ia0 FY 2002	Ia0 FY 2003	Ia0 FY 2004	Ia0 FY 2005
Performance	Projected:	356	362	362	362	362
	Actual:	356	362	0	0	0
Employee FTE	Projected:	63.3	74.9	74.9	74.9	74.9
	Actual:	25.3	66			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	16			
Direct Costs						
ONPS Base	Projected:	4331	3286	5867	5867	5867
	Actual:	2633	3588			
ONPS Other	Projected:	275	215	114	114	114
	Actual:	35	236			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	75	15	0	0	0
	Actual:	18	36			
Donations	Projected:	15	0	15	15	15
	Actual:	12	12			
Other Sources	Projected:	0	1662	0	0	0
	Actual:	0	291			
Totals:	Projected:	$4,696	$5,178	$5,996	$5,996	$5,996
	Actual:	$2,698	$4,188	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia0

Park/ Program Goal ID Number: YELL-02

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 72 (90%) of the 80 indicator geothermal features identified in Yellowstone National Park as of 1999 are in good condition.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
condition of indicators	number of indicator features in good condition	good	80	72

Projected Performance Target, end of strategic planning period: 72

Projected Performance Target, End of this Fiscal Year 72

Actual Result: 100

Comments Regarding Performance: A park volunteer participated in monitoring and cleaning over 100 features in the indicator areas during the summer months. The focus was on those features close to boardwalks because (1) they are the features most likely to be vandalized, and (2) they are the safest features to monitor and clean due to thin thermal crusts away from boardwalks. The VIP logged 257 hours monitoring and cleaning thermal features. During the course of the summer, 295 coins were cleaned out of the pools, all of which were thrown into the pools by park visitors

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia0 FY 2001	Ia0 FY 2002	Ia0 FY 2003	Ia0 FY 2004	Ia0 FY 2005
Performance	Projected:	90	72	72	72	72
	Actual:	72	100	0	0	0
Employee FTE	Projected:	11.8	12.7	12.7	12.7	12.7
	Actual:	9	9			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	1			
Direct Costs						
ONPS Base	Projected:	797	639	812	812	812
	Actual:	946	662			
ONPS Other	Projected:	6	0	20	20	20
	Actual:	0	25			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	15	19			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	25			
Totals:	Projected:	$803	$639	$832	$832	$832
	Actual:	$961	$756	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia0

Park/ Program Goal ID Number: YELL-03

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 100% of Yellowstone National Park's completed planning and compliance projects meet compliance requirements in order to most efficiently support the preservation of resources.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
planning & compliance projects	planning projects	meet compliance requirements	100	100

Projected Performance Target, end of strategic planning period: 100

Projected Performance Target, End of this Fiscal Year 100

Actual Result: 100

Comments Regarding Performance: Numerous planning projects successfully moved forward. A few notable projects are: Winter Use, Wildland Fire Urban Interface, Norris Water/Sewer Systems, Mammoth Housing, Dunraven Road Improvement, West Entrance Station, Hayden Road Improvement, New Courthouse, Madison Wastewater.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia0 FY 2001	Ia0 FY 2002	Ia0 FY 2003	Ia0 FY 2004	Ia0 FY 2005
Performance	Projected:	100	100	100	100	100
	Actual:	100	100	0	0	0
Employee FTE	Projected:	14.7	16.6	16.6	16.6	16.6
	Actual:	12.7	17			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	480	560	500	500	500
	Actual:	346	521			
ONPS Other	Projected:	0	0	0	0	0
	Actual:	80	7			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	779	710	1191	0	0
	Actual:	915	340			
Fee Programs	Projected:	30	0	0	0	0
	Actual:	10	25			
Donations	Projected:	0	0	0	0	0
	Actual:	2	0			
Other Sources	Projected:	0	805	0	0	0
	Actual:	0	339			
Totals:	Projected:	$1,289	$2,075	$1,691	$500	$500
	Actual:	$1,353	$1,232	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia0

Park/ Program Goal ID Number: YELL-04

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, winter habitat outside the Yellowstone National Park boundary for use by Yellowstone wildlife is increased from 124,000 acres in FY1997 to 132,000 acres.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
acres of winter habitat	acres	increase	124000	124000

Projected Performance Target, end of strategic planning period: 132000

Projected Performance Target, End of this Fiscal Year 132000

Actual Result: 124000

Comments Regarding Performance: As part of previous wildlife winter range purchased by the federal government in FY999 in the Gardiner Basin area north of the park, the federal government also holds a first refusal option to purchase additional private lands north of the park in this area. This option could not be exercised in FY02 because landowner did not wish to sell during this time. Yellowsone National Park's boundaries were initially established in 1872 with little regard for wildlife migration routes or winter habitat requirements. Key parcels of private lands are important winter habitat for bison and other wildlife, and some of those private lands have uses incompatible with protection of wintering wildlife. A significant number of partners are actively engaged in pursuing acquisition options for these private lands. Land and Water Conservation Funds may be critical to completion of acquisition options. This goal is measured by comparing the number of acres outside the park boundary available to wildlife for winter habitat to the number of acres available in FY97.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia0 FY 2001	Ia0 FY 2002	Ia0 FY 2003	Ia0 FY 2004	Ia0 FY 2005
Performance	Projected:	125000	132000	12700	130000	132000
	Actual:	132000	124000	0	0	0
Employee FTE	Projected:	.3	.3	.3	.3	.3
	Actual:	.2	.3			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	19	12	15	15	15
	Actual:	20	56			
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	977			
Fee Programs	Projected:	40	0	0	0	0
	Actual:	0	0			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	22			
Totals:	Projected:	$59	$12	$15	$15	$15
	Actual:	$20	$1,055	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia0

Park/ Program Goal ID Number: YELL-05

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005,Yellowstone Wildland Fire Management manages a 100% of all wildland fires according to the direction found in DO-18, RM-18, the 1998 Wildland Fire Management Guidelines and the current Yellowstone Wildland Fire Management Plan. As directed by these documents listed above, all wildland fires are managed according to the Appropriate Management Response. Further, there are no serious accidents, incidents or loss of life in the management of all wildland fires.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
wildland fires	percent	declared PNF and allowed to burn	91	91

Projected Performance Target, end of strategic planning period: 100

Projected Performance Target, End of this Fiscal Year 100

Actual Result: 100

Comments Regarding Performance: Goal was met with 100% of wildland fires being managed according to the Appropriate Management Response Guidelines found in the 1998 Wildland and Prescribed Fire Management Policy. This season there were 46 wildland fires in Yellowstone National Park, 42 were lightning caused and 4 were caused by downed power lines. 38 of the fires were suppressed (at 9,153 acres) and 8 were managed as Wildland Fire Use fires (3,602 acres) under the Appropriate Management Response guidelines. The Fire Management Staff brought in one Type I Incident Management Team to manage the Broad Fire, which burned 9,140 acres. The park contract helicopter flew 322 flight hours and a second helicopter brought in due to the busy fire season flew an additional 158 flight hours. There were no serious accidents, incidents, aircraft incidents or loss of life in the management of all wildliand fires this season.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia0 FY 2001	Ia0 FY 2002	Ia0 FY 2003	Ia0 FY 2004	Ia0 FY 2005
Performance	Projected:	91	100	100	100	100
	Actual:	39	100	0	0	0
Employee FTE	Projected:	15.8	17.7	17.7	17.7	17.7
	Actual:	40.7	48.3			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	0	81	0	0	0
	Actual:	0	333			
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	1			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	850	800	850	850	850
	Actual:	4339	3602			
Totals:	Projected:	$850	$881	$850	$850	$850
	Actual:	$4,339	$3,961	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia0

Park/ Program Goal ID Number: YELL-06

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, four of Yellowstone National Park's native species of special concern (trumpeter swan, white pelican, pronghorn antelope, and Yellowstone sand verbena), as of 1999, have an improved or stable status.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
status of species	species numbers	stable or improved condition	4	4

Projected Performance Target, end of strategic planning period: 4

Projected Performance Target, End of this Fiscal Year 4

Actual Result: 4

Comments Regarding Performance: The spring 2002 pronghorn count was 242 animals, up 17% from 2001. The fall 2002 trumpeter swan count detected 22 adults and 4 cygnets, up from 17 adults and 0 cygnets in 2001. Yellowstone staff worked with staff from the U.S. Fish and Wildlife Service and the Trumpeter Swan working group to determine best long-term management strategies for trumpeter swans in the Greater Yellowstone Area. Yellowstone Lake experienced no habitat degradation for Yellowstone Sand Verbena in 2002, thus the long-term outlook appears to be stable. This appears to be within the range of naturally occurring population variability. In 2002, 205 pelicans fledged from 122 active nests on the Molly Islands, and we were meeting our goal of maintaining populations that are likely to persist.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

Servicewide Goal Number:		Ia0 FY 2001	Ia0 FY 2002	Ia0 FY 2003	Ia0 FY 2004	Ia0 FY 2005
Performance	Projected:	4	4	4	4	4
	Actual:	4	4	0	0	0
Employee FTE	Projected:	1.1	1.6	1.1	1.1	1.1
	Actual:	9.7	5			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	.5			
Direct Costs						
ONPS Base	Projected:	5	62	62	62	62
	Actual:	295	273			
ONPS Other	Projected:	0	0	0	0	0
	Actual:	665	0			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	14	25			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	65	31			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	22			
Totals:	Projected:	$5	$62	$62	$62	$62
	Actual:	$1,039	$351	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia1A

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

10.1% of targeted parklands, disturbed by development or agriculture as of 1999 (22,500 of 222,300 acres) are restored.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 30.9 (69%) of 44.7 acres of Yellowstone National Park's targeted lands disturbed by prior development or agricultural uses, as of FY1999, are restored.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Disturbed Lands (Identified)	Acres	Restored/Mitigated	44.7	0

Projected Performance Target, end of strategic planning period: 6.5

Projected Performance Target, End of this Fiscal Year 6.5

Actual Result: 11

Comments Regarding Performance: Approximately 1 mile or 4.6 acres of the abandoned Turbid Lake Road were reclaimed in 2002 using NRPA disturbed land restoration funds. A significant portion of these lands was generated as restored wetland acres. Original contours were restored including one half mile of lakeshore. Approximately 2 acres of the Fishing Bridge cabin area were restored in FY02 after a fill from Federal Highways construction was moved to the Natural Bridge Pit funded by the Wyoming Office of Surface MInes grant. This soil storage area (50,000 cubic yards) was converted back to ancient barrier beach landform and revegetated. Fishing Bridge reclamation was restored as agreed upon with Wyoming State Preservation Office. Both the Turbid Lake and Fishing Bridge reclamation was implemented as part of the Fishing Bridge Plan and EIS to mitigate grizzly bear habitat. As part of the road construction project on the Madison to Norris (project PRA-YELL 10 (13)) stretch, 0.235 acres of roadway obliteration occurred, of which 0.10 acres were restored wetlands. These wetlands were restored as compensation for wetland impacts associated with road reconstruction. 4.9 acres of talus slopes on Sylvan Pass were restored as part of the Federal Highway Rock Haul contract (PRA-YELL 13 (8)). These land restoration projects were funded by the Federal Highway road construction program.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia1A	Ia1A	Ia1A	Ia1A	Ia1A
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	3.5	6.5	9.5	11.5	30.9
	Actual:	13.8	11	0	0	0
Employee FTE	Projected:	13.6	15.8	15.8	15.8	15.8
	Actual:	2.7	4.3			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	134	185	165	165	165
	Actual:	45	124			
ONPS Other	Projected:	0	0	71	71	71
	Actual:	60	70			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	20	0	0	0	0
	Actual:	129	22			
Donations	Projected:	35	0	35	35	35
	Actual:	48	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	22			
Totals:	Projected:	$189	$185	$271	$271	$271
	Actual:	$282	$263	$	$	$

Park / Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia1B

Park Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Exotic vegetation, identified as of September 30, 1999, on 6.3% of targeted acres of parkland (167,500 of 2,656,700) acres is contained.

Long-term Goal Performance Target (Park Program Long-term Goal text: adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, invasive exotic vegetation species on 22 (2.6%) of 822 targeted acres of Yellowstone National Park lands, as of FY1999, are eradicated or contained.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Land Impacted (Targeted)	Acres	Contained	822	0

Projected Performance Target, end of strategic planning period: 12

Projected Performance Target, End of this Fiscal Year 12

Actual Result: 12

Comments Regarding Performance: Yellowstone National Park staff are responsible for preventing, monitoring, and controlling exotic plant infestations. An aggressive inter-divisional effort continued, involving over 100 park staff and 175 volunteers. Most of the park's efforts go into surveying and controlling weeds on 822 targeted acres, 90% of which occurs along roadways and in developed areas and 10% in the park's backcountry. Thirty-three species were treated. An integrated weed management approach was used including mechanical and chemical controls. The majority of control efforts were directed at 22 priority 1 and 2 species including spotted, and Russian knapweed, yellow and dalmation toadflax, thistle species, ox-eye daisy, houndstongue, St. Johnswort, and field bindweed. Early detection and eradication efforts continued on leafy spurge, diffuse knapweed, sulfur cinquefoil, tansy aster, and plumeless thistle. No new exotic species were discovered in the park this year. Staff successfully eradicated or controlled 12 of the targeted acres of high priority species. However, because of long seed life of these exotic plant species, park staff will continue to monitor the known established weed patches for new establishment. Staff will continue to monitor and control exotic plants annually and continue with existing prevention programs.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia1A FY 2001	Ia1A FY 2002	Ia1A FY 2003	Ia1A FY 2004	Ia1A FY 2005
Performance	Projected:	3.5	6.5	9.5	11.5	30.9
	Actual:	13.8	11	0	0	0
Employee FTE	Projected:	13.6	15.8	15.8	15.8	15.8
	Actual:	2.7	4.3			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	134	185	165	165	165
	Actual:	45	124			
ONPS Other	Projected:	0	0	71	71	71
	Actual:	60	70			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	20	0	0	0	0
	Actual:	129	22			
Donations	Projected:	35	0	35	35	35
	Actual:	48	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	22			
Totals:	Projected:	$189	$185	$271	$271	$271
	Actual:	$282	$263	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia1B

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Exotic vegetation, identified as of September 30, 1999, on 6.3% of targeted acres of parkland (167,500 of 2,656,700) acres is contained.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, invasive exotic vegetation species on 22 (2.6%) of 822 targeted acres of Yellowstone National Park lands, as of FY1999, are eradicated or contained.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Land Impacted (Targeted)	Acres	Contained	822	0

Projected Performance Target, end of strategic planning period: 12

Projected Performance Target, End of this Fiscal Year 12

Actual Result: 12

Comments Regarding Performance: Yellowstone National Park staff are responsible for preventing, monitoring, and controlling exotic plant infestations. An aggressive inter-divisional effort continued, involving over 100 park staff and 175 volunteers. Most of the park's efforts go into surveying and controlling weeds on 822 targeted acres, 90% of which occurs along roadways and in developed areas and 10% in the park's backcountry. Thirty-three species were treated. An integrated weed management approach was used including mechanical and chemical controls. The majority of control efforts were directed at 22 priority 1 and 2 species including spotted, and Russian knapweed, yellow and dalmation toadflax, thistle species, ox-eye daisy, houndstongue, St. Johnswort, and field bindweed. Early detection and eradication efforts continued on leafy spurge, diffuse knapweed, sulfur cinquefoil, tansy aster, and plumeless thistle. No new exotic species were discovered in the park this year. Staff successfully eradicated or controlled 12 of the targeted acres of high priority species. However, because of long seed life of these exotic plant species, park staff will continue to monitor the known established weed patches for new establishment. Staff will continue to monitor and control exotic plants annually and continue with existing prevention programs.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia1B FY 2001	Ia1B FY 2002	Ia1B FY 2003	Ia1B FY 2004	Ia1B FY 2005
Performance	Projected:	7	12	16	19	22
	Actual:	7	12	0	0	0
Employee FTE	Projected:	11.3	12.4	12.4	12.4	12.4
	Actual:	3.6	5.6			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	2.5			
Direct Costs						
ONPS Base	Projected:	263	232	269	269	269
	Actual:	286	125			
ONPS Other	Projected:	200	0	0	0	0
	Actual:	0	2			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	89			
Fee Programs	Projected:	0	15	0	0	0
	Actual:	3	80			
Donations	Projected:	100	0	100	100	100
	Actual:	98	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	38			
Totals:	Projected:	$563	$247	$369	$369	$369
	Actual:	$387	$334	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia2

Park/ Program Goal ID Number: Ia2

NPS Servicewide Goal Description (Mission or Long-term Goal text):

By September 30, 2005, 14.4% of the 1999 identified park populations (64 of 442) of federally listed threatened and endangered species with critical habitat on park lands or requiring NPS recovery actions have improved status; and an additional 28.7% (127 of 442) have stable populations.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, one (the gray wolf) (33%) of Yellowstone National Park's three identified populations of federally listed threatened and endangered species with critical habitat on park lands and/or requiring NPS recovery actions, as of 1999, has an improved status.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Status of Species	Species (Each)	Improving and Stable		

Projected Performance Target, end of strategic planning period: 1

Projected Performance Target, End of this Fiscal Year 1

Actual Result: 0

Comments Regarding Performance:

Problem Resolution Comments:

No detail report is included for performance and direct costs associated with Goal Ia2, pertaining to federally listed threatened and endangered species. This information is collected at the regional office level and is not reported in PMDS by the park.

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia3

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Air quality in 70% of reporting park areas has remained stable or improved.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, air quality in Yellowstone National Park has remained stable or improved relative to FY1998 conditions.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Park air quality	Percentage	Improved or Unchanged	0	0

Projected Performance Target, end of strategic planning period: 0

Projected Performance Target, End of this Fiscal Year 0

Actual Result: 0

Comments Regarding Performance: The major air quality issue in the park is associated with winter use activities. Incremental improvement occurred this year.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia3 FY 2001	Ia3 FY 2002	Ia3 FY 2003	Ia3 FY 2004	Ia3 FY 2005
Performance	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Employee FTE	Projected:	.6	.6	.6	.6	.6
	Actual:	.5	.4			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	32	49	26	26	26
	Actual:	19	48			
ONPS Other	Projected:	0	12	0	0	0
	Actual:	11	4			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	150	0	0	0	0
	Actual:	22	0			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	22			
Totals:	Projected:	$182	$61	$26	$26	$26
	Actual:	$52	$99	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia4

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

75% of Park units will have unimpaired water quality.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, Yellowstone National Park has unimpaired water quality.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Water Quality	Each park with qualifying waters.	Unimpaired	1	1

Projected Performance Target, end of strategic planning period: 1

Projected Performance Target, End of this Fiscal Year 1

Actual Result: 1

Comments Regarding Performance: No NPDES violations were issued. A spill occurred at Lake Lodge sewer treatment plant lift station but did not result in a violation.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia4 FY 2001	Ia4 FY 2002	Ia4 FY 2003	Ia4 FY 2004	Ia4 FY 2005
Performance	Projected:	1	1	1	1	1
	Actual:	0	1	0	0	0
Employee FTE	Projected:	.3	.3	.3	.3	.3
	Actual:	.9	2.8			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	38	308	31	31	31
	Actual:	16	102			
ONPS Other	Projected:	0	0	16	16	16
	Actual:	68	0			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	5272	304	2604	0	0
	Actual:	2	25			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	10	0			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	155			
Totals:	Projected:	$5,310	$612	$2,651	$47	$47
	Actual:	$96	$282	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia5

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

48% of the historic structures on the current List of Classified Structures are in good condition.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 453 (50%) of 907 Yellowstone Naitonal Park historic structures listed on the FY1999 National Park Service List of Classified Structures (LCS) are in good condition.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Condition	Each Structure	Good	907	400

Projected Performance Target, end of strategic planning period: 415

Projected Performance Target, End of this Fiscal Year 415

Actual Result: 452

Comments Regarding Performance: Progress was made in FY02 to update information on the condition of structures as a result of participation in the pilot program of the new asset management software FMSS (Maximo). Work was done this year to correct major deficiences in several buildings. The backlog of deferred maintenance for these structures far outstrips the park's budgetary ability to make needed improvements.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia5 FY 2001	Ia5 FY 2002	Ia5 FY 2003	Ia5 FY 2004	Ia5 FY 2005
Performance	Projected:	400	415	435	445	453
	Actual:	473	452	0	0	0
Employee FTE	Projected:	3.4	3.4	3.4	3.4	3.4
	Actual:	24.4	17.6			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	843	549	848	848	848
	Actual:	44	1006			
ONPS Other	Projected:	0	0	158	158	158
	Actual:	297	208			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	2666	0	5411	0	0
	Actual:	608	87			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	205	42			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	700	2643	700	700	700
	Actual:	1455	165			
Totals:	Projected:	$4,209	$3,192	$7,117	$1,706	$1,706
	Actual:	$2,609	$1,508	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia6

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

72.3% of preservation and protection standards for park museum collections are met.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 193 (36%) of 536 preservation and protection standards for Yellowstone National Park are met.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Applicable Standards	Each Standard	Meet Standards	536	163

Projected Performance Target, end of strategic planning period: 193

Projected Performance Target, End of this Fiscal Year 193

Actual Result: 194

Comments Regarding Performance: Total number of applicable standards have dropped this year due to changes in exhibit areas. A major accomplishment towards meeting this goal in the future was the completion of the environmental assessment and final designs for the new Yellowstone Heritage Center. At the time of this report's compilation the contract has been awarded and the ground has been broke for the new facility.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia6 FY 2001	Ia6 FY 2002	Ia6 FY 2003	Ia6 FY 2004	Ia6 FY 2005
Performance	Projected:	175	193	193	193	193
	Actual:	184	194	0	0	0
Employee FTE	Projected:	2.5	2.5	2.5	2.5	2.5
	Actual:	2.5	3			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	20	62	16	16	16
	Actual:	34	151			
ONPS Other	Projected:	35	0	82	82	82
	Actual:	99	102			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	6046	355	0	0	0
	Actual:	45	6295			
Fee Programs	Projected:	50	0	0	0	0
	Actual:	85	24			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	22			
Totals:	Projected:	$6,151	$417	$98	$98	$98
	Actual:	$263	$6,594	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ia8

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

50% of the recorded archeological sites with condition assessments are in good condition.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 101 (17%) of 605 Yellowstone National Park archeological sites listed on the FY1999 National Park Service Archeological Sites Management Information System (ASMIS), with condition assessments, are in good condition.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Condition	Each Site	Good	605	101

Projected Performance Target, end of strategic planning period: 101

Projected Performance Target, End of this Fiscal Year 101

Actual Result: 103

Comments Regarding Performance: Goal was exceeded for a second year.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ia8	Ia8	Ia8	Ia8	Ia8
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	101	101	101	101	101
	Actual:	108	103	0	0	0
Employee FTE	Projected:	.6	.6	.6	.6	.6
	Actual:	1.1	1.2			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	32	62	25	25	25
	Actual:	74	108			
ONPS Other	Projected:	45	0	0	0	0
	Actual:	41	0			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	2	0			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	23			
Totals:	Projected:	$77	$62	$25	$25	$25
	Actual:	$117	$156	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ib2A

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Archeological sites inventoried and evaluated are increased by 35% (from FY 1999 baseline of 48,188 sites to 65,054).

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, the number of Yellowstone National Park archeological sites inventoried, evaluated and listed on the Naitonal Park Service Archeological Sites Management Information System (ASMIS) is increased from 957 in FY1999 to 1200.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Number in database	Each Archeological Site Added	Increase	957	0

Projected Performance Target, end of strategic planning period: 984

Projected Performance Target, End of this Fiscal Year 984

Actual Result: 1023

Comments Regarding Performance: Goal was exceeded for a second year.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ib2A FY 2001	Ib2A FY 2002	Ib2A FY 2003	Ib2A FY 2004	Ib2A FY 2005
Performance	Projected:	964	984	994	1004	1200
	Actual:	1023	1023	0	0	0
Employee FTE	Projected:	.5	.5	.5	.5	.5
	Actual:	.9	1.3			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	1.2			
Direct Costs						
ONPS Base	Projected:	20	123	16	16	16
	Actual:	65	59			
ONPS Other	Projected:	0	0	0	0	0
	Actual:	30	44			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0			
Totals:	Projected:	$20	$123	$16	$16	$16
	Actual:	$95	$103	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 07, 2003

Servicewide Goal ID Number: Ib2B

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Cultural landscapes inventoried and evaluated at Level II are increased by 89.8% (from FY 1999 baseline of 137to 260).

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, the number of Yellowstone National Park cultural landscapes entered on the National Park Service Cultural Landscapes Inventory is increased from zero in FY1999 to two.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Number in database	Each Cultural Landscape Added	Increase	0	0

Projected Performance Target, end of strategic planning period: 2

Projected Performance Target, End of this Fiscal Year 2

Actual Result: 0

Comments Regarding Performance: One (Stevens Creek) completed. Data for 2nd is pending input into the CLI.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ib2B FY 2001	Ib2B FY 2002	Ib2B FY 2003	Ib2B FY 2004	Ib2B FY 2005
Performance	Projected:	2	2	1	1	1
	Actual:	1	0	0	0	0
Employee FTE	Projected:	.5	.5	.5	.5	.5
	Actual:	.2	1.3			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	25	1	20	20	20
	Actual:	19	125			
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	22			
Totals:	Projected:	$25	$1	$20	$20	$20
	Actual:	$19	$172	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 07, 2003

Servicewide Goal ID Number: lb2C

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

100% of the historic structures have updated information (FY 1999 baseline 24,225 of 24,225).

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, all 907 (100%) of Yellowstone National Park historic structures on the FY1999 List of Classified Structures (LCS) have updated information in their LCS records.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
LCS records	Each	Updated	1000	0

Projected Performance Target, end of strategic planning period: 500

Projected Performance Target, End of this Fiscal Year 500

Actual Result: 0

Comments Regarding Performance: Park reported 500 records updated although LCS did not show updates for reporting period.

Problem Resolution Comments: Continue to submit updated records in anticipation updated data will be included during reporting period.

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ib2C FY 2001	Ib2C FY 2002	Ib2C FY 2003	Ib2C FY 2004	Ib2C FY 2005
Performance	Projected:	907	500	650	800	907
	Actual:	907	0	0	0	0
Employee FTE	Projected:	.3	.3	.3	.3	.3
	Actual:	.4	3.5			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	22	11	17	17	17
	Actual:	44	69			
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	0			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	259			
Totals:	Projected:	$22	$11	$17	$17	$17
	Actual:	$44	$353	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 07, 2003

Servicewide Goal ID Number: Ib2D

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Museum objects cataloged are increased by 34.3% (from FY 1999 baseline of 37.3 million to 50.1 million).

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, the number of Yellowstone National Park museum objects cataloged into the National Park Service Automated National Catalog System (ANCI+) and submitted to the National Catalog is increased from 115,582 in FY1999 to 124,720.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Number in database	Each Museum Object Added	Increase	115582	115582

Projected Performance Target, end of strategic planning period: 124720

Projected Performance Target, End of this Fiscal Year 124720

Actual Result: 190627

Comments Regarding Performance: Project funds allowed for a successful year in which this goal was exceeded by thousands of objects.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ib2D	Ib2D	Ib2D	Ib2D	Ib2D
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	122105	124720	124720	124720	124720
	Actual:	124720	190627	0	0	0
Employee FTE	Projected:	5.1	5.1	5.1	5.1	5.1
	Actual:	1.4	2.6			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	157	49	184	184	184
	Actual:	108	147			
ONPS Other	Projected:	21	0	90	90	90
	Actual:	40	30			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	11			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	22			
Totals:	Projected:	$178	$49	$274	$274	$274
	Actual:	$148	$235	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 07, 2003

Servicewide Goal ID Number: Ib2E

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Ethnographic resources inventory is increased 634% (from FY 1999 baseline of 400 to 2,938).

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, the number of Yellowstone National Park ethnographic resources inventoried, evaluated and entered on the National Park Service Ethnographic Resources Inventory (ERI) is increased from zero in FY1999 to 130.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Number in database	Each Ethnographic Resource Added	Increase	0	0

Projected Performance Target, end of strategic planning period: 52

Projected Performance Target, End of this Fiscal Year 52

Actual Result: 74

Comments Regarding Performance:

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	Ib2E	Ib2E	Ib2E	Ib2E	Ib2E
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	26	52	78	104	130
	Actual:	10	74	0	0	0
Employee FTE	Projected:	1.1	1.1	1.1	1.1	1.1
	Actual:	.9	1.6			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	5	62	5	5	5
	Actual:	61	110			
ONPS Other	Projected:	0	0	0	0	0
	Actual:	30	16			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	22			
Totals:	Projected:	$5	$62	$5	$5	$5
	Actual:	$91	$173	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: Ib2F

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

29% of parks have historical research that is current and completed to professional standards (112 of 385).

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, Yellowstone National Park's Historic Resource Studies (HRS) and Administrative History are completed to professional standards, current (approved since 1980), and entered in CRBIB.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Historical research in CRBIB	Each Park	Current and complete	0	0

Projected Performance Target, end of strategic planning period: 0

Projected Performance Target, End of this Fiscal Year 0

Actual Result: 0

Comments Regarding Performance: Goal is on target for completion by FY2003. Research and writing were the focus in 2002.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

Servicewide Goal Number:		Ib2F FY 2001	Ib2F FY 2002	Ib2F FY 2003	Ib2F FY 2004	Ib2F FY 2005
Performance	Projected:	0	0	0	0	0
	Actual:	0	0	0	0	0
Employee FTE	Projected:	0	0			
	Actual:	.3	1.5			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	5	1	5	5	5
	Actual:	15	28			
ONPS Other	Projected:	0	0	21	21	21
	Actual:	0	0			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	15	0			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	0			
Totals:	Projected:	$5	$1	$26	$26	$26
	Actual:	$30	$28	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 07, 2003

Servicewide Goal ID Number: Ib3

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

80% (216) of 270 parks with significant natural resources have identified their vital signs for natural resource monitoring.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, Yellowstone National Park has identified its vital signs for natural resource monitoring.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Vital signs	Each Park	Identified	0	0

Projected Performance Target, end of strategic planning period: 0

Projected Performance Target, End of this Fiscal Year 0

Actual Result: 0

Comments Regarding Performance: This goal is at the intermediate phase. Delphi process completed.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

Servicewide Goal Number:		Ib3	Ib3	Ib3	Ib3	Ib3
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	0	0	0	0	1
	Actual:	0	0	0	0	0
Employee FTE	Projected:	.2	.2	.2	.2	.2
	Actual:	2.2	2			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	5	24	5	5	5
	Actual:	224	120			
ONPS Other	Projected:	0	0	0	0	0
	Actual:	11	0			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	22			
Totals:	Projected:	$5	$24	$5	$5	$5
	Actual:	$235	$167	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IIa0

Park/ Program Goal ID Number: YELL-01

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.[Any goal identified here MUST NOT relate to visitor satisfaction or report doll

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 80% of Yellowstone National Park visitors are satisfied with appropriate combined park facilities.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
visitor satisfaction	percent of visitors	satisfied	79	79

Projected Performance Target, end of strategic planning period: 79

Projected Performance Target, End of this Fiscal Year 79

Actual Result: 87

Comments Regarding Performance:

Problem Resolution Comments:

No detail report is included for performance and direct costs associated with Goal IIa0 YELL-01, 02, 03, pertaining to visitor enjoyment and satisfaction with facilities, services, and recreational opportunities. These park specific goals are for measuring visitor satisfaction as a breakout from IIa1. Costs, performance, and FTE are reflected in Goal IIa1.

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IIa0

Park/ Program Goal ID Number: YELL-02

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.[Any goal identified here MUST NOT relate to visitor satisfaction or report doll

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 91% of Yellowstone National Park visitors are satisfied with appropriate combined visitor services.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
visitor satisfaction	percent	satisfied	91	91

Projected Performance Target, end of strategic planning period: 91

Projected Performance Target, End of this Fiscal Year 91

Actual Result: 88

Comments Regarding Performance: The average of the National Park Service offered services met this goal: 95%, 88% and 93%. The commercial services section did not meet this goal with 78%. The combined average is 88%.

Problem Resolution Comments:

No detail report is included for performance and direct costs associated with Goal IIa0 YELL-01, 02, 03, pertaining to visitor enjoyment and satisfaction with facilities, services, and recreational opportunities. These park specific goals are for measuring visitor satisfaction as a breakout from IIa1. Costs, performance, and FTE are reflected in Goal IIa1.

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IIa0

Park/ Program Goal ID Number: YELL-03

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.[Any goal identified here MUST NOT relate to visitor satisfaction or report doll

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 95% of Yellowstone National Park visitors are satisfied with appropriate combined recreational opportunities.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
visitor satisfaction	percent	satisfied	93	93

Projected Performance Target, end of strategic planning period: 93

Projected Performance Target, End of this Fiscal Year 93

Actual Result: 94

Comments Regarding Performance: Visitor interest in opportunities provided in this category remianed high for the second year in a row.

Problem Resolution Comments:

No detail report is included for performance and direct costs associated with Goal IIa0 YELL-01, 02, 03, pertaining to visitor enjoyment and satisfaction with facilities, services, and recreational opportunities. These park specific goals are for measuring visitor satisfaction as a breakout from IIa1. Costs, performance, and FTE are reflected in Goal IIa1.

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IIa1

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

95% of park visitors are satisfied with appropriate park facilities, services, and recreational opportunities.

Long-term Goal Performance Target (Park/ Program Long-term Goal text: adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 95% of Yellowstone National Park visitors are satisfied with appropriate park facilities, services, and recreational opportunities.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Visitor Satisfaction	Percentage	Satisfied	95	0

Projected Performance Target, end of strategic planning period: 95

Projected Performance Target, End of this Fiscal Year 95

Actual Result: 96

Comments Regarding Performance: All survey cards were distributed by the Division of Interpretation at various venues throughout the park. This included outside visitor centers, in parking areas, campgrounds, following educational programs, and at entrance stations.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	IIa1 FY 2001	IIa1 FY 2002	IIa1 FY 2003	IIa1 FY 2004	IIa1 FY 2005
Performance	Projected:	95	95	95	95	95
	Actual:	94	96	0	0	0
Employee FTE	Projected:	172.8	100.8	101	102	102
	Actual:	178.6	173			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	9.2			
Direct Costs						
ONPS Base	Projected:	9301	6463	9464	9464	9464
	Actual:	10243	9950			
ONPS Other	Projected:	2070	60	2820	2820	2820
	Actual:	84	547			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	10269	0	0
	Actual:	1809	1575			
Fee Programs	Projected:	1600	1297	0	0	0
	Actual:	712	2497			
Donations	Projected:	10	0	10	10	10
	Actual:	3	106			
Other Sources	Projected:	0	2655	0	0	0
	Actual:	1024	1336			
Totals:	Projected:	$12,981	$10,475	$22,563	$12,294	$12,294
	Actual:	$13,875	$16,011	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570 Date Prepared: January 02, 2003

Servicewide Goal ID Number: IIa2 *Park/ Program Goal ID Number:* YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

The visitor accident/incident rate will be at or below 7.96 per 100,000 visitor days [a 16% decrease from the FY 1992 - FY 1996 baseline of 9.48 per 100,000 visitor days].

	Baseline Year:	*Target Year:*
Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period): By September 30, 2005, the number of Yellowstone National Park visitor accidents/incidents is no higher than the FY1992-FY1996 five-year average of 353.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Visitor Safety Incident Rate	Visitor Accident/Incident Number	Reduced	353	0

Projected Performance Target, end of strategic planning period: 353

Projected Performance Target, End of this Fiscal Year 353 *Actual Result:* 158

Comments Regarding Performance: Performance was measured by counting serious injury, illness or deaths by going through EMS run sheets.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	IIa2 FY 2001	IIa2 FY 2002	IIa2 FY 2003	IIa2 FY 2004	IIa2 FY 2005
Performance	Projected:	353	353	353	353	353
	Actual:	188	158	0	0	0
Employee FTE	Projected:	137.9	154.5	154.5	154.5	154.5
	Actual:	213.1	171			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	2.1			
Direct Costs						
ONPS Base	Projected:	6772	8325	6864	6864	6864
	Actual:	7807	7550			
ONPS Other	Projected:	788	30	1174	1174	1174
	Actual:	1495	193			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	1126	0	0
	Actual:	1	1322			
Fee Programs	Projected:	1416	541		0	0
	Actual:	2557	789			
Donations	Projected:	2	185	2	2	2
	Actual:	0	47			
Other Sources	Projected:	0	727	0	0	0
	Actual:	1458	1905			
Totals:	Projected:	$8,978	$9,808	$9,166	$8,040	$8,040
	Actual:	$13,318	$11,806	$	$	$

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IIb0

Park/ Program Goal ID Number: YELL-01

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Park visitors and the general public understand and appreciate the preservation of parks and their resources for this and future generations. [goals identified here MUST NOT relate to visitor understanding and appreciation (Goal IIb1)]

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 95% of students participating in the park's formal, educational programs understand Yellowstone's cultural and natural heritage as preserved by Yellowstone National Park and its programs.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
student understanding	percent	student understanding	100	100

Projected Performance Target, end of strategic planning period: 95

Projected Performance Target, End of this Fiscal Year 95

Actual Result: 100

Comments Regarding Performance: Measurement of this goal was from the following sources: Expedition: Yellowstone! Teacher Surveys, Requested Education Program Evaluations, and W-mail comments received from teachers whose students participated in Windows Into Wonderland's electronic field trips. Highlights from FY02 are: Junior Ranger Program broke all previous records and with the addition of a winter program it is now a year round educational opportunity. The student employment program, Opening Doors, expanded to work with the Junior Ranger Program at Grant Village Visitor Center. The electronic field trip program, Windows Into Wonderland, pilot was a success with students from 19 countries participating. The summer activity program, Exploring Yellowstone, had 117 activity sessions.

Problem Resolution Comments:

Superintendent's Narrative of Accomplishments, FY 2002

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IIb1

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

86% of park visitors understand and appreciate the significance of the park they are visiting.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 95% of Yellowstone National Park visitors understand the significance of the park.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Understanding	Percentage	Understand	59	0

Projected Performance Target, end of strategic planning period: 65

Projected Performance Target, End of this Fiscal Year 65

Actual Result: 61

Comments Regarding Performance: It is unknow at this time as to why the park did not meet this goal. Numbers tend to be low in this category with past trend being: 1998 (59%), 1999 (69%), 2000 (49%), 2002 (61%). The park will be looking at the Park Significance List and evaluating the appropriateness, wording, etc.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	IIb1	IIb1	IIb1	IIb1	IIb1
		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Performance	Projected:	59	65	75	85	95
	Actual:	61	61	0	0	0
Employee FTE	Projected:	16.9	18.9	18.9	18.9	18.9
	Actual:	23.7	20.9			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	4.3			
Direct Costs						
ONPS Base	Projected:	815	807	874	874	874
	Actual:	541	1617			
ONPS Other	Projected:	88	23	75	75	75
	Actual:	149	1			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	405			
Fee Programs	Projected:	1850	911	940	940	940
	Actual:	969	3			
Donations	Projected:	3	0	3	3	3
	Actual:	0	152			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	422			
Totals:	Projected:	$2,756	$1,741	$1,892	$1,892	$1,892
	Actual:	$1,659	$2,600	$	$	$

Superintendent's Narrative of Accomplishments, FY 2002

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IIIaX

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

The number of satisfactorily completed projects under formal agreements that assist partners in protecting their resources or serving their visitors is increased by X% (park-determined). OPTIONAL GOAL

	Baseline Year:	*Target Year:*
Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period): By September 30, 2005, the number of projects satisfactorily completed by Greater Yellowstone partners under formal agreements that assist partners in protecting their resources or serving their visitors is increased from one in FY1999 to six.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Projects	Each Project	Satisfactorily completed	1	0

Projected Performance Target, end of strategic planning period: 2

Projected Performance Target, End of this Fiscal Year 2

Actual Result: 2

Comments Regarding Performance: Stream reach information for the Greater Yellowstone Area was developed which involved collection of hydrological, geomorphic and physical information from streams that would serve as reference for Desired Future Condition (DFC). Partnership included six national forests, Grand Teton NP, and Bighorn NRA.

Problem Resolution Comments:

ESTIMATED PERFORMANCE AND DIRECT COSTS

All Dollar Amounts are in Thousands

	Servicewide Goal Number:	IIIaX FY 2001	IIIaX FY 2002	IIIaX FY 2003	IIIaX FY 2004	IIIaX FY 2005
Performance	Projected:	1	2	4	5	6
	Actual:	1	2	0	0	0
Employee FTE	Projected:	3.7	3.7	3.7	3.7	3.7
	Actual:	.9	1			
Non-NPS FTEs	Projected:	0	0			
	Actual:	0	0			
Direct Costs						
ONPS Base	Projected:	191	65	212	212	212
	Actual:	215	58			
ONPS Other	Projected:	0	0	0	0	0
	Actual:	0	212			
NR&P Base	Projected:	0	0	0	0	0
	Actual:	0	0			
HPF Base	Projected:	0	0	0	0	0
	Actual:	0	0			
Land Acq.	Projected:	0	0	0	0	0
	Actual:	0	0			
Const. Base	Projected:	0	0	0	0	0
	Actual:	0	25			
Fee Programs	Projected:	0	0	0	0	0
	Actual:	0	0			
Donations	Projected:	0	0	0	0	0
	Actual:	0	0			
Other Sources	Projected:	0	0	0	0	0
	Actual:	0	72			
Totals:	Projected:	$191	$65	$212	$212	$212
	Actual:	$215	$367	$	$	$

No detail report is included for performance and direct costs associated with Goals in category IV.

All costs and FTE associated with these activities have been reallocated to goals in category I, II, and III.

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVa3A

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

100% of employee performance plans are linked to appropriate strategic and annual performance goals and position competencies.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 100% of Yellowstone National Park permanent and TERM employee performance agreements are linked to appropriate strategic and annual performance goals and position competencies.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Employee performance plans	Each	Linked	361	361

Projected Performance Target, end of strategic planning period: 361

Projected Performance Target, End of this Fiscal Year 361

Actual Result: 361

Comments Regarding Performance:

Problem Resolution Comments:

Superintendent's Narrative of Accomplishments, FY 2002

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVa4A

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Increase the servicewide representation of underrepresented groups over the 1999 baseline by 25% in the 9 targeted occupational series in the permanent workforce.

	Baseline Year:	*Target Year:*
Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period): By September 30, 2005, the number of Yellowstone National Park permanent positions in targeted occupational series filled by employees from underrepresented groups is increased from 32 at the end of FY1999 to 34.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Diversity	Number of Employees	Representation	93	32

Projected Performance Target, end of strategic planning period: 32

Projected Performance Target, End of this Fiscal Year 32

Actual Result: 38

Comments Regarding Performance:

Problem Resolution Comments:

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVa4B

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

increase the servicewide representation of underrepresented groups over the 1999 baseline by 25% of women and minorities in the temporary and seasonal workforce.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, the total number of Yellowstone National Park temporay/seasonal positions annually filled by women and minorities is increased from 179 in FY1999 to 188.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Diversity	Each	Representation	403	179

Projected Performance Target, end of strategic planning period: 182

Projected Performance Target, End of this Fiscal Year 182

Actual Result: 167

Comments Regarding Performance: Unknown as to why goal was not achieved this year.

Problem Resolution Comments:

Superintendent's Narrative of Accomplishments, FY 2002

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVa4C

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Increase the servicewide representation of underrepresented groups over the 1999 baseline by 10% of individuals with disabilities in the permanent workforce.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, the number of Yellowstone Naitonal Park permanent positions filled by employees with disabilities is increased from eight in FY1999 to nine.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Diversity	Each	Representation	361	8

Projected Performance Target, end of strategic planning period: 8

Projected Performance Target, End of this Fiscal Year 8

Actual Result: 7

Comments Regarding Performance: On track for 5 year goal

Problem Resolution Comments:

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVa4D

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

increase the servicewide representation of underrepresented groups over the 1999 baseline by 10% of individuals with disabilities in the seasonal and temporary workforce.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, the total number of Yellowtone National Park temporary/seasonal positions annually filled by employees with disabilities is increased from three in FY1999 to four.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Diversity	Each	Representation	403	3

Projected Performance Target, end of strategic planning period: 3

Projected Performance Target, End of this Fiscal Year 3

Actual Result: 3

Comments Regarding Performance:

Problem Resolution Comments:

Superintendent's Narrative of Accomplishments, FY 2002

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVa5

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

50% of employee housing units listed in poor or fair condition in 1997 assessments are rehabilitated to good condition, replaced, or removed.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, the number of Yellowstone National Park employee housing units listed in poor or fair condition is reduced from 343 in FY1997 to 177.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Classification	Number of Housing Units	Good,Replaced,or Removed	343	343

Projected Performance Target, end of strategic planning period: 273

Projected Performance Target, End of this Fiscal Year 273

Actual Result: 288

Comments Regarding Performance: The goal was to reduce the number of housing units listed in poor or fair condition to 273. The goal was not met. 4 housing units had the interior upgraded and 2 buildings (duplex units) had the exterior upgraded. Thus the number of housing units with interior or exterior conditions rated at poor, fair, or worse as of 30 September 2002 is 288. Housing Initiative funds are being used to continue upgrading units and replacing trailers.

Problem Resolution Comments:

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVa6A

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

the NPS employee lost-time injury rate will be at or below 2.989 per 200,000 labor hours worked.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, the number of Yellowstone Naitonal Park employee-lost-time injuries is reduced from the FY1992-FY1996 five-year annual average of 19 to 14.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Employee Lost Time Injury Rate	Incident Rate	Reduced	3.95	3.95

Projected Performance Target, end of strategic planning period: 18

Projected Performance Target, End of this Fiscal Year 18

Actual Result: 24

Comments Regarding Performance: Efforts continue to educate employees and offer training opportunities in support of safety as a core value of park management. Lost time rate for FY02 is 3.288. Data was acquired from the Safety Management Informaiton System (SMIS).

Problem Resolution Comments:

Superintendent's Narrative of Accomplishments, FY 2002

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVa6B

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

The servicewide total number of hours of Continuation of Pay (COP) will be at or below 50,500 hours.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, the Yellowstone National Park total number of hours of Continuation of Pay (COP) is reduced from the FY1992-FY1996 five-year annual average of 1,379 to 1,213.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Continuation of Pay (COP) Hours	Hours	Reduced	1379	1379

Projected Performance Target, end of strategic planning period: 1340

Projected Performance Target, End of this Fiscal Year 1340

Actual Result: 1380

Comments Regarding Performance: Cost of COP hours was $23,821.00. Information was obtained from Washington Risk Management Office. Statistics are through the 3rd Quarter Report - FY2002 (October 1, 2001 - June 20, 2002).

Problem Resolution Comments:

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVa7

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

100% of line-item projects funded by September 30, 1998, and each successive fiscal year, meet 90% of cost, schedule and construction parameters.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, 100% of Yellowstone National Park line-item construction projects funded by September 30, 1998, and each successive fiscal year, meet 90% of cost, schedule, and construction parameters.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Construction Projects	Percentage	Meet Target	8	8

Projected Performance Target, end of strategic planning period: 3

Projected Performance Target, End of this Fiscal Year 3

Actual Result: 0

Comments Regarding Performance: As per DSC the park does not have a Line Item project that applies to this goal in FY02.

Problem Resolution Comments:

Superintendent's Narrative of Accomplishments, FY 2002

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVb1

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Increase by 26% the number of volunteer hours [from 3.8 million hours in 1997 to 4.8 million hours].

	Baseline Year:	*Target Year:*
Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period): By September 30, 2005, the number of Yellowstone National Park volunteer hours is increased from 43,283 in FY1997 to 85,000 hours.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Volunteer Hours	Hours	Increase	43283	43283

Projected Performance Target, end of strategic planning period: 54053

Projected Performance Target, End of this Fiscal Year 54053

Actual Result: 88088

Comments Regarding Performance: 444 VIP's participated in FY02. Total number of hours equals 42 FTE.

Problem Resolution Comments:

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVb2A

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

Cash donations are increased by 60% [from $14.476 million in 1998 to $23.2 million].

	Baseline Year:	*Target Year:*
Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period): By September 30, 2005, cash donations to Yellowstone National Park increase from $82,506 in FY1998 to $300,000.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Cash Donations and Cash Grants from all Sources.	Dollars	Increase	82506	82506

Projected Performance Target, end of strategic planning period: 150000

Projected Performance Target, End of this Fiscal Year 150000 *Actual Result:* 182000

Comments Regarding Performance:

Problem Resolution Comments:

Superintendent's Narrative of Accomplishments, FY 2002

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVb2B

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

The value of donations, grants, and services from Friends Groups and other organizations is increased to $50 million.

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period): By September 30, 2005, the cash value of in-kind donations, grants, and services to Yellowstone National Park by the Yellowstone Foundation and other organizations is increased from $208,843 in FY1997 to $1,932,000.	*Baseline Year:* 2001	*Target Year:* 2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
In-Kind Donations from Friends Groups and other Non-profit Support Organizations	Dollars	Increase	208843	208843

Projected Performance Target, end of strategic planning period: 800000

Projected Performance Target, End of this Fiscal Year 800000

Actual Result: 803000

Comments Regarding Performance:

Problem Resolution Comments:

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVb2C

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

The value of donations, grants, and services from Cooperating Associations is increased by 35% [from $19 million in 1997 to $25.6 million].

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period):	*Baseline Year:*	*Target Year:*
By September 30, 2005, the cash value of in-kind donations, grants and service to Yellowstone National Park from the Yellowstone Association is increased from $490,648 in FY1997 to $539,713.	2001	2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Value of Donations from Cooperating Associations	Dollars	Increase	490648	490648

Projected Performance Target, end of strategic planning period: 510000

Projected Performance Target, End of this Fiscal Year 510000

Actual Result: 570648

Comments Regarding Performance: This goal was measured by tracking the value of in-kind donations form the park's cooperating association in FY02. The Yellowstone Association is the park's primary partner in providing education to park visitors. The Yellowstone Association provides financial support for educational and scientific programs and projects in Yellowstone National Park. Several projects were supported this year including the second year of a multi-year project for new exhibits for the Canyon Visitor Center.

Problem Resolution Comments:

Superintendent's Narrative of Accomplishments, FY 2002

Park/ Program Name: YELLOWSTONE NP

Park/ Program Org Code: 1570

Date Prepared: January 02, 2003

Servicewide Goal ID Number: IVbX

Park/ Program Goal ID Number: YELL

NPS Servicewide Goal Description (Mission or Long-term Goal text):

The number of projects satisfactorily completed by partners under formal agreement that protect park resources or serve the park visitors is increased by [park-determined percent-age].

Long-term Goal Performance Target (Park/ Program Long-term Goal text; adjust date for end of current strategic planning period): By September 30, 2005, the number of projects successfully completed by Greater Yellowstone partners under formal agreements that protect the resources and serve the visitors of Yellowstone National Park is increased from one in FY1999 to ten.	*Baseline Year:* 2001	*Target Year:* 2005

Performance Indicator (what is measured):	*Unit Measure:*	*Condition (Desired):*	*Total # Units in Baseline:*	*Status in Base Year (# Meeting Condition):*
Projects	Each Project	Satisfactorily completed	1	1

Projected Performance Target, end of strategic planning period: 3

Projected Performance Target, End of this Fiscal Year 3

Actual Result: 3

Comments Regarding Performance: Noxious Weed Risk Map and Vegetation Classification using ASTER satellite data and NASA's Shuttle Radar Topography Mission (SRTM) data completed. Whitebark Pine Annotated Bibliography completed.

Problem Resolution Comments:

Performance By Park

FOR FISCAL YEAR 2002

Region: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK: YELL

GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
Ia0	YELL-01	Other	381	381	362	362	$3,286	$3,588	74.9	66
Ia0	YELL-02	Other	80	72	72	100	$639	$662	12.7	9
Ia0	YELL-03	Other	100	100	100	100	$560	$521	16.6	17
Ia0	YELL-04	Other	124,000	124,000	132000	124000	$12	$56	0.3	0.3
Ia0	YELL-05	Other	91	91	100	100	$81	$333	17.7	48.3
Ia0	YELL-06	Other	4	4	4	4	$62	$273	1.6	5
Ia1A	YELL	Restoring Formerly Developed Lands	45	0	6.5	11	$185	$124	15.8	4.3
Ia1B	YELL	Containing Exotic Plant Species	822	0	12	12	$232	$125	12.4	5.6
Ia2 Improving	Ia2	Managing T&E Species			1	0	$916	$0	11.8	0
Ia2 Stable	Ia2	Managing T&E Species			2	0				
Ia3	YELL	Air Quality in Parks	0	0	0	0	$49	$48	0.6	0.4
Ia4	YELL	Water Quality	1	1	1	1	$308	$102	0.3	2.8

Fund Source(s) Displayed:

ONPS Base

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Performance Management Data System

Performance By Park

FOR FISCAL YEAR 2002

Page: 2

Report: PERF_PARK

Region: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK: YELL

GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
Ia5	YELL	Historic Structures (LCS)	907	400	415	452	$549	$1,006	3.4	17.6
Ia6	YELL	Park Museum Collections	536	163	193	194	$62	$151	2.5	3
Ia8	YELL	Archeological Sites (ASMIS)	605	101	101	103	$62	$108	0.6	1.2
Ib2A	YELL	Archaeological Site Inventory	957	0	984	1023	$123	$59	0.5	1.3
Ib2B	YELL	Cultural Landscape Inventory	0	0	2	0	$1	$125	0.5	1.3
Ib2C	YELL	LCS Inventory Information Updated	1,000	0	500	0	$11	$69	0.3	3.5
Ib2D	YELL	Museum Objects Cataloged	115,582	115,582	124720	190627	$49	$147	5.1	2.6
Ib2E	YELL	Ethnographic Resources Inventoried	0	0	52	74	$62	$110	1.1	1.6
Ib2F	YELL	Historical Research Baseline	0	0	0	0	$1	$28	0	1.5
Ib3	YELL	Vital Signs	0	0	0	0	$24	$120	0.2	2

Fund Source(s) Displayed:

ONPS Base

FOR FISCAL YEAR 2002

Region: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK: YELL

GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
		Identified								
Ib4	YELL	Geological Process Inventory					$0	$0		
IIa0	YELL-01	Other	79	79	79	87	$3,417	$0	58	0
IIa0	YELL-02	Other	91	91	91	88	$475	$0	9	0
IIa0	YELL-03	Other	93	93	93	94	$175	$0	3	0
IIa1	YELL	Visitor Satisfaction	95	0	95	96	$6,463	$9,950	100.8	173
IIa2	YELL	Visitor Safety	353	0	353	158	$8,325	$7,550	154.5	171
IIb0	YELL-01	Other	100	100	95	100	$111	$182	2.3	5.7
IIb1	YELL	Visitor Understanding and Appreciation	59	0	65	61	$807	$1,617	18.9	20.9
IIIaX	YELL	Projects with Partners - External	1	0	2	2	$65	$58	3.7	1
IVa3A	YELL	Performance Standards Linked to Goals	361	361	361	361	$0	$0	0	0

Fund Source(s) Displayed:

ONPS Base

RUNDATE: 01/13/2003 06:56 PM EST

Performance Management Data System

Report: PERF_PARK

Performance By Park

FOR FISCAL YEAR 2002

Region: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK: YELL

GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
IVa4A	YELL	Diversity of the Labor Force - Permanents	93	32	32	38	$0	$0	0	0
IVa4B	YELL	Diversity of the Labor Force - Seasonals	403	179	182	167	$0	$0	0	0
IVa4C	YELL	Disabled Representation - Permanents	361	8	8	7	$0	$0	0	0
IVa4D	YELL	Disabled Representation - Seasonals	403	3	3	3	$0	$0	0	0
IVa5	YELL	Housing Units Removed, Replaced or Upgraded	343	343	273	288	$0	$0	0	0
IVa6A	YELL	Lost-time Injury Rate	4	4	18	24	$0	$0	0	0
IVa6B	YELL	Workers' Compensation Hours	1,379	1,379	1340	1380	$0	$0	0	0
IVa7	YELL	Construction Projects Meeing Standards	8	8	3	0	$0	$0	0	0

Fund Source(s) Displayed:

ONPS Base

Performance By Park

FOR FISCAL YEAR 2002

Region: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK: YELL

GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
IVb1	YELL	Volunteer Hours	43,283	43,283	54053	88088	$0	$0	0	0
IVb2A	YELL	Cash Donations and Cash Grants	82,506	82,506	150000	182000	$0	$0	0	0
IVb2B	YELL	Donations In-kind - Friends Groups, etc.	208,843	208,843	800000	803000	$0	$0	0	0
IVb2C	YELL	Cooperating Assoc. Donated Value	490,648	490,648	510000	570648	$0	$0	0	0
IVbX	YELL	Projects with Partners - Internal	1	1	3	3	$0	$0	0	0

Dollars are Displayed in Thousands

	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
Total For Park:	1074617.65	1068855.95	1776776.5	1963856	$27,112	27112	529.1	565.9

Dollars are Displayed in Thousands

	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
Total For Region:	1074617.65	1068855.95	*********	1963856	$27,112	27112	529.1	565.9

Dollars are Displayed in Thousands

	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
Total For Report:	1,074,618	1,068,856	1776776.5	1963856	$27,112	27,112	529.1	565.9

Fund Source(s) Displayed:

ONPS Base

Performance By Park

FOR FISCAL YEAR 2002

Region: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK: YELL

GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
Ia0	YELL-01	Other	381	381	362	362	$5,178	$4,188	74.9	66
Ia0	YELL-02	Other	80	72	72	100	$639	$756	12.7	9
Ia0	YELL-03	Other	100	100	100	100	$2,075	$1,232	16.6	17
Ia0	YELL-04	Other	124,000	124,000	132000	124000	$12	$1,055	0.3	0.3
Ia0	YELL-05	Other	91	91	100	100	$881	$3,961	17.7	48.3
Ia0	YELL-06	Other	4	4	4	4	$62	$351	1.6	5
Ia1A	YELL	Restoring Formerly Developed Lands	45	0	6.5	11	$185	$263	15.8	4.3
Ia1B	YELL	Containing Exotic Plant Species	822	0	12	12	$247	$334	12.4	5.6
Ia2 Improving	Ia2	Managing T&E Species			1	0	$916	$0	11.8	0
Ia2 Stable	Ia2	Managing T&E Species			2	0				
Ia3	YELL	Air Quality in Parks	0	0	0	0	$61	$99	0.6	0.4
Ia4	YELL	Water Quality	1	1	1	1	$612	$282	0.3	2.8

Fund Source(s) Displayed:

ONPS Base, ONPS Other, Land Acquisition, Construction Base, Fee Program, Donations, Other Sources, NR&P Base, HPF Base

Performance Management Data System

Performance By Park

FOR FISCAL YEAR 2002

Region: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK: YELL

GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
Ia5	YELL	Historic Structures (LCS)	907	400	415	452	$3,192	$1,508	3.4	17.6
Ia6	YELL	Park Museum Collections	536	163	193	194	$417	$6,594	2.5	3
Ia8	YELL	Archeological Sites (ASMIS)	605	101	101	103	$62	$156	0.6	1.2
Ib2A	YELL	Archaeological Site Inventory	957	0	984	1023	$123	$103	0.5	1.3
Ib2B	YELL	Cultural Landscape Inventory	0	0	2	0	$1	$172	0.5	1.3
Ib2C	YELL	LCS Inventory Information Updated	1,000	0	500	0	$11	$353	0.3	3.5
Ib2D	YELL	Museum Objects Cataloged	115,582	115,582	124720	190627	$49	$235	5.1	2.6
Ib2E	YELL	Ethnographic Resources Inventoried	0	0	52	74	$62	$173	1.1	1.6
Ib2F	YELL	Historical Research Baseline	0	0	0	0	$1	$28	0	1.5
Ib3	YELL	Vital Signs	0	0	0	0	$24	$167	0.2	2

Fund Source(s) Displayed:

ONPS Base, ONPS Other, Land Acquisition, Construction Base, Fee Program, Donations, Other Sources, NR&P Base, HPF Base

FOR FISCAL YEAR 2002

Region: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK: YELL

GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
		Identified								
Ib4	YELL	Geological Process Inventory					$0	$0		
IIa0	YELL-01	Other	79	79	79	87	$3,526	$0	58	0
IIa0	YELL-02	Other	91	91	91	88	$525	$0	9	0
IIa0	YELL-03	Other	93	93	93	94	$216	$0	3	0
IIa1	YELL	Visitor Satisfaction	95	0	95	96	$10,475	$16,011	100.8	173
IIa2	YELL	Visitor Safety	353	0	353	158	$9,808	$11,806	154.5	171
IIb0	YELL-01	Other	100	100	95	100	$141	$382	2.3	5.7
IIb1	YELL	Visitor Understanding and Appreciation	59	0	65	61	$1,741	$2,600	18.9	20.9
IIIaX	YELL	Projects with Partners - External	1	0	2	2	$65	$367	3.7	1
IVa3A	YELL	Performance Standards Linked to Goals	361	361	361	361	$0	$0	0	0

Fund Source(s) Displayed:

ONPS Base, ONPS Other, Land Acquisition, Construction Base, Fee Program, Donations, Other Sources, NR&P Base, HPF Base

Performance Management Data System

Performance By Park

FOR FISCAL YEAR 2002

Report: PERF_PARK

Region: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK: YELL

GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
IVa4A	YELL	Diversity of the Labor Force - Permanents	93	32	32	38	$0	$0	0	0
IVa4B	YELL	Diversity of the Labor Force - Seasonals	403	179	182	167	$0	$0	0	0
IVa4C	YELL	Disabled Representation - Permanents	361	8	8	7	$0	$0	0	0
IVa4D	YELL	Disabled Representation - Seasonals	403	3	3	3	$0	$0	0	0
IVa5	YELL	Housing Units Removed, Replaced or Upgraded	343	343	273	288	$0	$0	0	0
IVa6A	YELL	Lost-time Injury Rate	4	4	18	24	$0	$0	0	0
IVa6B	YELL	Workers' Compensation Hours	1,379	1,379	1340	1380	$0	$0	0	0
IVa7	YELL	Construction Projects Meeing Standards	8	8	3	0	$0	$0	0	0

Fund Source(s) Displayed:

ONPS Base, ONPS Other, Land Acquisition, Construction Base, Fee Program, Donations, Other Sources, NR&P Base, HPF Base

FOR FISCAL YEAR 2002

Region: INTERMOUNTAIN REGION

Dollars are Displayed in Thousands

PARK: YELL

GOAL	PGIN	GOAL DESCRIPTION	BASELINE	MET COND.	PERF TARGET PLANNED	PERF TARGET ACTUAL	DOLLARS PLANNED	DOLLARS ACTUAL	FTE PLANNED	FTE ACTUAL
IVb1	YELL	Volunteer Hours	43,283	43,283	54053	88088	$0	$0	0	0
IVb2A	YELL	Cash Donations and Cash Grants	82,506	82,506	150000	182000	$0	$0	0	0
IVb2B	YELL	Donations In-kind - Friends Groups, etc.	208,843	208,843	800000	803000	$0	$0	0	0
IVb2C	YELL	Cooperating Assoc. Donated Value	490,648	490,648	510000	570648	$0	$0	0	0
IVbX	YELL	Projects with Partners - Internal	1	1	3	3	$0	$0	0	0
Dollars are Displayed in Thousands										
Total For Park:			1074617.65	1068855.95	1776776.5	1963856	$41,307	53176	529.1	565.9
Dollars are Displayed in Thousands										
Total For Region:			1074617.65	1068855.95	*********	1963856	$41,307	53176	529.1	565.9
Dollars are Displayed in Thousands										
Total For Report:			1,074,618	1,068,856	1776776.5	1963856	$41,307	53,176	529.1	565.9

Fund Source(s) Displayed:

ONPS Base, ONPS Other, Land Acquisition, Construction Base, Fee Program, Donations, Other Sources, NR&P Base, HPF Base

Yellowstone NP
2002 Visitor Survey Card Data Report

Introduction

o assist the National Park Service in complying ith the Government Performance and Results Act GPRA), a visitor survey was conducted in units of e National Park System in FY02. The survey was eveloped to measure each park unit's performance lated to NPS GPRA Goals IIa1 (visitor satisfaction) nd IIb1 (visitor understanding and appreciation).

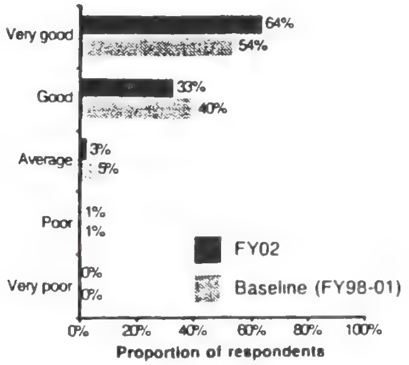
ne results of the Visitor Survey Card (VSC) survey onducted at this park are summarized in this data port. A description of the research methods and mitations is on the back page.

elow (left) is a graph summarizing visitor opinions the "overall quality of facilities, services, and creational opportunities." This graph compares Y02 data (shown in black) with baseline data hown in gray). The satisfaction measure below this aph is a combined percentage of "good" and "very ood" responses. This is the primary performance easure for Goal IIa1. (The satisfaction measure ay not equal the sum of "very good" and "good" rcentages due to rounding.)

elow (right) is the FY02 GRPA reporting measure r Goal IIa1. The percentage included in the box ould be used for reporting GPRA Goal IIa1 rformance. The response rate for this park survey as 29%.

Overall quality of facilities, services & recreational opportunities

FY02: 110 respondents



FY02: Satisfaction measure: 96%
Average evaluation score: 4.6

Understanding the Results

Inside this report are graphs that illustrate the survey results. The report contains three categories of data—park facilities, visitor services, and recreational opportunities. Within these categories are graphs for each indicator evaluated by park visitors. For example, the park facilities category includes indicators such as visitor center, exhibits, restrooms, and so forth. In addition, responses for indicators within each category are averaged into a combined graph for the category (e.g., combined park facilities). The combined graphs compare FY02 data with baseline data.

Each graph includes the following information:

- the number of visitor responses for the indicator;
- the percentage of responses which were "very good," "good," "average," "poor," and "very poor;"
- a satisfaction measure that combines the percentage of total responses which were "very good" or "good;" and
- an average evaluation score (mean score) based on the following values: very poor = 1, poor = 2, average = 3, good = 4, very good = 5.

Very Poor 1 2 3 4 5 Very Good

The higher the average evaluation score, the more positive the visitor response.

FY02 GPRA Reporting Measure for Goal IIa1

Percentage of park visitors satisfied overall with appropriate facilities, services, and recreational opportunities:

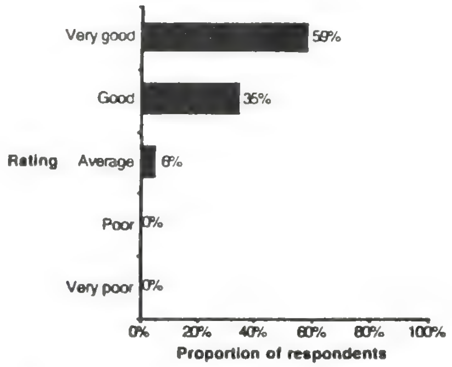
96%

Report prepared by the University of Idaho Cooperative Park Studies Unit for the National Park Service, Department of the Interior

Yellowstone NP
Park Facilities

Visitor Center

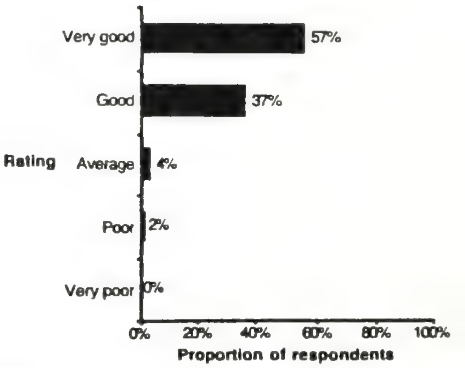
FY02: 101 respondents



FY02: Satisfaction measure: 94%
Average evaluation score: 4.5

Exhibits

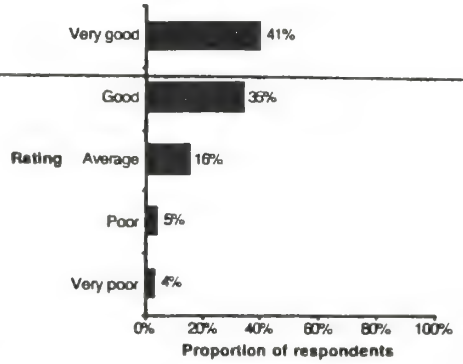
FY02: 103 respondents



FY02: Satisfaction measure: 94%
Average evaluation score: 4.5

Restrooms

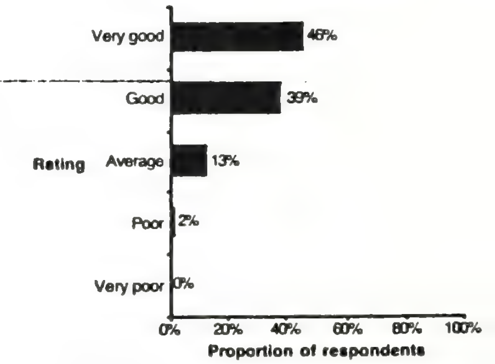
FY02: 111 respondents



FY02: Satisfaction measure: 76%
Average evaluation score: 4

Walkways, trails, and roads

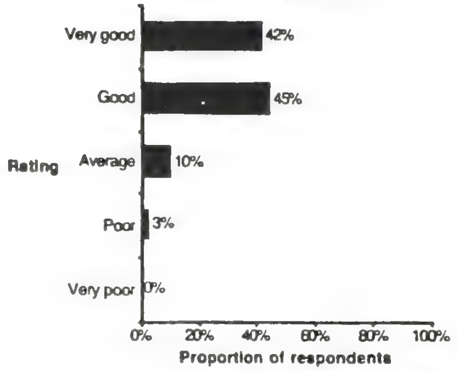
FY02: 112 respondents



FY02: Satisfaction measure: 85%
Average evaluation score: 4.3

Campgrounds and/or picnic areas

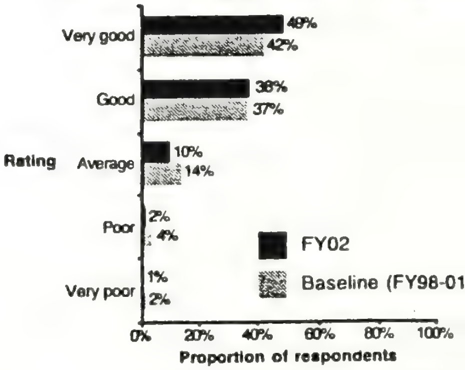
FY02: 73 respondents



FY02: Satisfaction measure: 88%
Average evaluation score: 4.3

Combined park facilities

FY02: 112 responses (based on 5 indicators

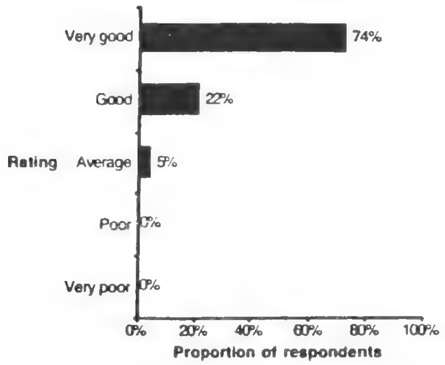


FY02: Satisfaction measure: 87%
Average evaluation score: 4.3

Yellowstone NP Visitor Services

Assistance from park employees

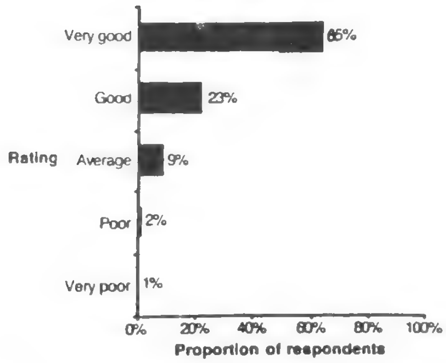
FY02: 106 respondents



FY02: Satisfaction measure: 95%
Average evaluation score: 4.7

Park map or brochure

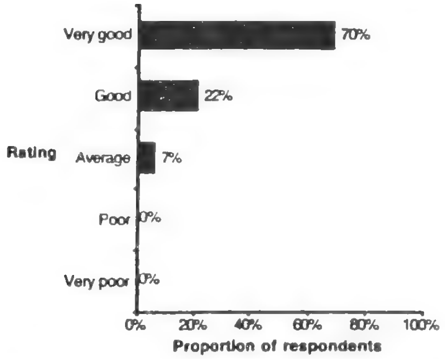
FY02: 111 respondents



FY02: Satisfaction measure: 88%
Average evaluation score: 4.5

Ranger programs

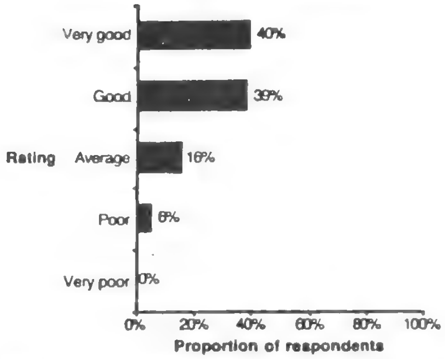
FY02: 54 respondents



FY02: Satisfaction measure: 93%
Average evaluation score: 4.6

Commercial services in the park

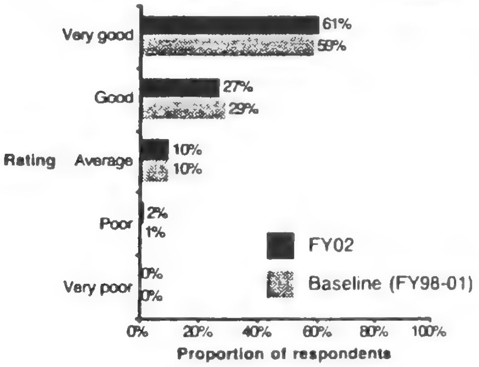
FY02: 106 respondents



FY02: Satisfaction measure: 78%
Average evaluation score: 4.1

Combined visitor services

FY02: 111 responses (based on 4 indicators)

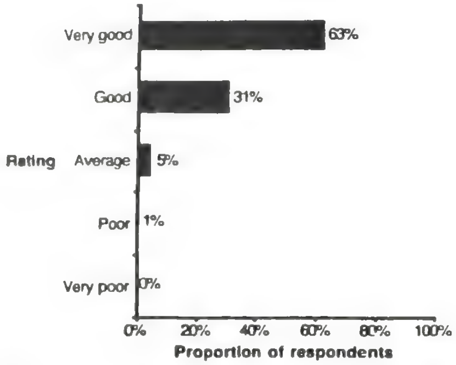


FY02: Satisfaction measure: 88%
Average evaluation score: 4.5

Yellowstone NP
Recreational Opportunities

Learning about nature, history, or culture

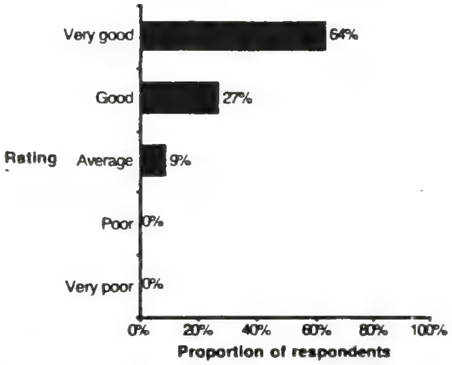
FY02: 97 respondents



FY02: Satisfaction measure: 94%
Average evaluation score: 4.6

Outdoor recreation

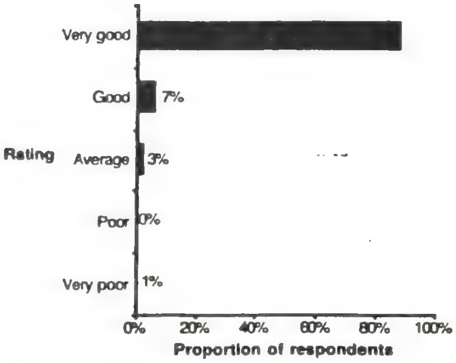
FY02: 86 respondents



FY02: Satisfaction measure: 91%
Average evaluation score: 4.5

Sightseeing

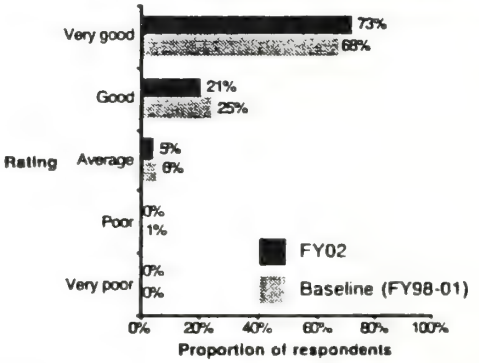
FY02: 111 respondents



FY02: Satisfaction measure: 96%
Average evaluation score: 4.8

Combined recreational opportunities

FY02: 111 responses (based on 3 indicators)



FY02: Satisfaction measure: 94%
Average evaluation score: 4.7

Research Methods

Survey cards were distributed to a random sample of visitors in this park during the period July 1-31, 2002. The data reflect visitor opinions about this NPS unit's facilities, services, and recreational opportunities during the survey period. Visitors at selected locations representative of the general visitor population were sampled. The results do not necessarily apply to visitors during other times of the year, or park visitors who did not visit the survey locations.

Returned cards were electronically scanned and the data analyzed. Frequency distributions were calculated for each indicator and category. All percentage calculations were rounded to the nearest percent. The survey response rate is described on the first page of this report. The sample siz varies from figure to figure, depending on the number o responses.

Caution is advised when interpreting any data with a sa size of less than 30. In such cases, the word "CAUTION included in the graph. This report excludes any indicato less than 10 responses.

For most indicators, the survey data are expected to be a within ±6% with 95% confidence. This means that if di samples had been drawn, the results would have been si (±6%) 95 out of 100 times.

For more information about the VSC contact Jennifer Hoger, VSC Project Coordinator
at the University of Idaho Cooperative Park Studies Unit (208) 885-4806

REFERENCE PAGE

State of the Park	http://www.nps.gov/yell/stateofthepark.htm
Summer Fun	http://www.nps.gov/yell/Interpretation/YellSpr.pdf
Information about Yellowstone National Park	http://www.nps.gov/yell/publications/yellfact.htm
National Park Service	http://www.nps.gov/
Yellowstone Visitor Centers	http://www.nps.gov/yell/planvisit/todo/vc/index.htm
♿ Information	http://www.nps.gov/yell/planvisit/access/index.htm
Need a map?	http://www.nps.gov/yell/planvisit/orientation/mapslist.htm

Yellowstone Association
Patricia Cole, Executive Director
PO Box 117
Yellowstone National Park, WY 82190
Tel: (307) 344-2290 Fax: (307) 344-2486
email: pcole@YellowstoneAssociation.org
http://www.yellowstoneassociation.org/

Yellowstone Park Foundation
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37 East Main Street, Suite 4
Bozeman, MT 59715
Tel: (406) 586-6303 Fax: (406) 586-6337
email: yellowstn@aol.com
http://www.ypf.org/

Greater Yellowstone Coordinating Committee
Lawrence Timchak, Executive Coordinator
1310 Main St.
P. O. Box 50760
Billings, Montana 80225
Tel: (406) 657-6900 Fax: (406) 657-6901
email: gycc@nps.gov

To request a printed copy of public documents or if you are requesting other information, please write:

Superintendent's Office
National Park Service/ Yellowstone National Park
P.O. Box 168
Yellowstone National Park, WY 82190-0168

SUPERINTENDENT'S ANNUAL NARRATIVE 2002 HIGHLIGHTS

ADMINISTRATION

All employees have performance standards tied to GPRA goals. The goal for diversity in the permanent workforce was exceeded, but diversity in the seasonal workforce was not met. The goal for disability representation in the permanent and seasonal workforce was met, while the goal for VIP hours was exceeded.

In the Branch of Finance, a new Comptroller was hired. The Finance Office oversaw a park-wide budget of $55M in ONPS and soft money. The office successfully completed an audit by KPMG, and implemented new Standard Operating Procedure's including one for credit card accountability.

In the Branch of Contracting and Property Management, the recently hired Contracting Officer is now fully functioning, along with two other new employees in the branch. The office actively supported the Broad Fire in July, and managed to close out the fiscal year with almost no overtime. The office handled 74 contracts/orders and over 3,000 procurements. In property management, the property clerk is fully functioning, and the office made significant contributions to the KPMG audit. Yellowstone's GSA auction was conducted on-line for the first time, and the annual property inventory was completed on time.

In Office Services, 90,000 pieces of outgoing mail were handled, and 3 million copies were made. An analysis and subsequent lease of new high volume copiers was conducted.

In the Branch of Information Technology 1,845 work orders were processed. Staff rewired South Entrance and Lake, and provided support to the Broad Fire, Winter Olympics and Secret Service Communications Center. The Telecommunications staff relocated to temporary quarters in the middle of the year. Successful negotiations were made with four cellular service providers. In Computer Support Services, a new Supervisory Information Technology Specialist was hired. She immediately upgraded servers and increased the efficiency of systems administration, while working to improve customer service to the 690 PC's in the park.

In the Branch of Human Resources, a new Human Resources Officer was hired, along with a full-time OWCP coordinator. The office processed 2,600 personnel actions, 2,800 applications, 128 vacancy announcements, 45 classification evaluations and 11 retirements. To help with the workload, a human resources specialist was brought in on a one-month detail.

The Chief of Administration served as the Agency representative on an EEOC hearing, and participated in three EO cases, two grievance hearings, and three adverse actions. She participated in on-going business planning, reporting on GPRA goals and developing safety awareness and goals. She served as park coordinator on the yearlong competitive sourcing effort. She worked on housing issues on a regular basis, including increasing communication and coordination with maintenance. She filled in behind vacancies of the Human Resources Officer, Comptroller and Supervisory Information Technology Specialist.

SUPERINTENDENT

The Superintendent's office took part in planning many VIP trips to the park in FY2002. In January, the National Park Service Director, Fran Mainella and her staff visited the park to experience the winter operation. The Director took part in the Olympic Torch Relay as it passed through the park. Along on the trip was Karen Wade, Regional Director from Denver, and newly appointed Yellowstone and Grand Teton Superintendents Suzanne Lewis and Steve Martin.

The Superintendent's office was asked for help in preparing itineraries for visits from Deputy Director Don Murphy and family, Deputy Assistant Secretary J. Steven Griles, the Director of FEMA, Joe Allbaugh, and Representative Nathan Deal and family. In July, the President and Regional Director for the National Trust for Historic Preservation, Dick Moe and Barb Pahl visited several areas of interest in the park and stayed at Lake Yellowstone Hotel. Our office assisted with reservations for First Lady Laura Bush, her friends and over 50 Secret Service agents. We also coordinated with the Secret Service to sponsor a reception for the First Lady and friends at Old Faithful Snow Lodge.

The Superintendent's office assisted in making reservations for Bruce Evans from Senator Conrad Burns' office; Sean Whitman, senior staffer from Senator Craig Thomas' office; Mike Stephens, from Minority Appropriations; and David Watkins and Rick Healy from the House Resources Subcommittee.

Yellowstone's first female superintendent, Suzanne Lewis (SES/02), assumed her new duties in February after serving as Superintendent of Glacier National Park for two years. Frank Walker (GM/15), who was the Acting Superintendent after the retirement of Superintendent Mike Finley, was chosen as the Assistant Superintendent. Frank came to Yellowstone from the Superintendent's position in Saguaro National Park.

Mary Maj, a former U.S. Forest Service employee, filled the Greater Yellowstone Coordinating Committee's Executive Coordinator position. Mary will be working for the group out of the Forest Service supervisor's office in Bozeman, Montana.

The Superintendent and Assistant Superintendent participated in a variety of business, social, and partnership activities throughout the fiscal year. They traveled extensively to Washington D.C. and Denver to discuss preparation and implementation of the Winter Use SEIS and the Interim Bison Management Plan. They welcomed park managers from foreign parks in Spain, Sweden and South Africa. They participated in the tribal consultation with some of the park's affiliated tribes, attended area Chambers of Commerce meetings, met with many outside groups including: GYC; NPCA; NRDC; Christian Ministry; Big Sky Institute; USGS; Federal Highways; NPF; and OSHA. The Superintendent met with many potential donors to the park including: the Fireside Group from Jackson, Coke, Canon, and a National Park Foundation Group in San Mateo, CA. Both Superintendents took part in the Gardiner Rodeo Parade, riding in one of the restored White busses in June.

During the early summer the park was under a Level 5 Preparedness level for wildfires and dealt with many fire-related issues over the 9,000 acre Broad Fire.

Superintendent's Secretary (PFT, GS/07), Kerrie McCartney took a 90-day detail as the Superintendent's Secretary at Bandelier National Monument from January 21 to April 21, 2002. While at Bandelier, Kerrie produced a correspondence manual and established correct correspondence procedures, set up a Peer Award system, and had the opportunity to familiarize herself with the Santa Fe offices. During Kerrie's absence, Beth Taylor, secretary at YCR, was detailed in the Superintendent's Office.

Administrative Assistant (PFT, GS/09) Jan Laye took over the budget responsibilities for the Superintendent's Office, Safety, Planning, GYCC and Winter Use. The new AFS3 web-based budget operating system was used to program and track budget operations this year.

The Superintendent's Office completed 21 chapel reservations. There were 35 Congressional requests for responses to letters from constituents. Subjects included bison management, winter use, personnel issues, concessions, road closures, area closures, and posting of church services.

Eighty-nine comment letters from the public requiring a written response were received in the Superintendent's Office in 2002. Subjects included availability of restrooms and drinking water, traffic violations and various citations, accessibility, fishing regulations, employee conduct, medical services, entry fees, concessions, First Amendment activities, road conditions, boats on Yellowstone Lake, church services, bear management, recycling, and educational programs.

PUBLIC AFFAIRS

In fiscal year 2002 the Public Affairs staff consisted of three permanent, full-time employees; one permanent, subject-to-furlough, and one term, subject-to-furlough employee. In February 2002 Diane Kline left the permanent, full-time position as secretary of Public Affairs. Olivia McCombs temporarily filled the secretary position for the summer season. This position was converted to permanent, subject-to-furlough and Sue Williams was hired to fill this position in October 2002. The current employees include Marsha Karle, Chief of Public Affairs, Cheryl Matthews, Assistant Public Affairs Officer, Stacy Vallie, Public Affairs Specialist, Karen McEneaney, Public Affairs Assistant and Sue Williams, Secretary.

In fiscal year 2002, 140 press releases were issued. These releases addressed controversial and sensitive issues such as fatalities, bison gorings, thermal burns, fugitives, winter use, fires, search and rescue efforts, bear maulings, road projects and bison management. In addition, releases were issued on other less controversial topics such as the appointment of the new Assistant Superintendent, the Olympic Torch Relay, Delaware North as a new concessioner, and Hamilton Stores, Inc. long tenure in Yellowstone National Park. In addition to these issues, the Public Affairs staff also addressed numerous Congressional, media and public information requests on such topics as winter use, bioprospecting, bison, grizzly and wolf management, education, and personnel issues.

In addition to the extensive planning and support involved in the visits of Fran Mainella, Director of the National Park Service; Eric Ruff, DOI Director of Communications; Steve Griles, Deputy Secretary of Interior; and Brian Waidmann, DOI Chief of Staff; the public affairs staff also played a significant role in the Olympic Torch relay at Old Faithful in January, 2002. In September, the Public Affairs staff led the organizational efforts for a major event celebrating the region's Clean Cities Designation by the Department of Energy. In December, the Public Affairs office sponsored the 13th Annual Christmas Tree Lighting Ceremony for Mammoth and the surrounding communities.

Approximately 250-300 requests for commercial filming and photography permits were received in the Public Affairs Office in fiscal year 2002, resulting in the issuance of 89 permits. Extensive planning, monitoring, location scouting and research went into these projects. A considerable amount of time was also spent on filming and photography proposals where no permits were issued. The majority of the permits issued in fiscal year 2002 were for documentaries on topics such as bears, wolves, bison and microbes, while others were issued for travelogues, a MTV Production, magazine ads, and soundscapes.

The Public Affairs Office hosted seven groups of foreign dignitaries representing the countries of the Dominican Republic, the People's Republic of China, Russia, Sweden, and Iceland.

BUSINESS MANAGEMENT

While staffing levels have remained constant, there has been some reorganization and redescription of positions as a result of the additional responsibilities that accompanied the passage of P.L. 105-391, in 1998. Two positions have been downgraded; however, depending upon the evolving job responsibilities under the new law, they may need to be upgraded in the future. Implementing regulations have placed a heavy administrative burden on the National Park Service, much of which was previously accomplished by concessioners.

PFT: Chief, Business Management, GS-1101-14, Edna Good
Asst. Chief, Business Management Division, GS-1101-13, Judy Churchwell
Business Management Analyst, GS-1101-12, Mary Murphy
Quality Control Specialist, GS-1101-9, Barb Riley
Quality Control Specialist, GS-1101-5/6/7, vacant
Business Management Assistant, GS-1101-9, Patty Kremer
Administrative Assistant, GS-1101-5/6, vacant

Data Systems Specialist, GS-1101-11, Paul Norman (TERM, full time)
Civil Engineer, GS-801-11, Erik Hendrickson (TERM, full time)
Administrative Assistant, GS-1101-5, Connie Fitzgerald (TEMP, full time)
Sanitarian, GS-11, Vacant (TEMP full time - summer only)

The four major concessioners, the winter operators and horse outfitters earned in excess of $80 million gross receipts during the operating season of 2002. The four major concessioners alone, generated the following tax revenue:

Park County $1,572,531; Teton County $3,165,094; Federal $350,598; Wyoming $344,174 for a total of **$5,432,397.**

A new policy adopted by the Washington office requires parks to contract with PricewaterhouseCoopers for development of concession contracts that gross in excess of $3 million. In Yellowstone, that affects Xanterra Parks and Resorts (formerly Amfac) and Yellowstone Park Service Stations. This relationship and cooperative development of the contract and prospectus has been beneficial to the park, but it is very expensive (thus far funded by 80 percent franchise fee money) and demands an enormous amount of staff time.

Status of contracts:

- Xanterra Parks and Resorts - contract expires October 31, 2004. We have contracted with outside consultants for comprehensive condition assessments of the major buildings assigned to Xanterra. The fieldwork has been done and reports are coming in. In addition, we contracted for a valuation of personal property and equipment for both Xanterra and YPSS. It is our plan to have the Xanterra prospectus published late November 2003.

Xanterra is currently on a 3-year extension, for which they committed to $8 million in concession employee housing. A 14-unit apartment complex has been completed at Old Faithful and an existing dormitory at Grant Village is currently being expanded. The expansion will not add for new employees but will eliminate the situation of three employees to a room. In the planning and design stage are apartment units at the YACC camp and land in Gardiner.

- Hamilton Stores, Inc. - contract extension expired December 31, 2002. The new concessioner, Delaware North Parks Services took over on January 1, 2003. Their contract is for a 15-year term. Binding arbitration is planned for mid-February to determine compensable interest of Hamilton Stores. Major elements of the new contract include closure of the Tower Fall and Roosevelt stores and construction of a new store at Tower Junction. Accessible rest rooms will be added at the Old Faithful Upper and Lower Stores and RV sites will be constructed at Lake and Grant.

- Yellowstone Park Medical Services - Medcor, Inc., was selected as the new concessioner, in response to a prospectus published November 8, 2002. West Park Hospital has been requested to continue operations for a short time pending some resolution of financial information and other transition issues. Hopefully, these will be resolved by April 1.

- Yellowstone Park Service Stations - Yellowstone Park Service Stations has been operated by authority of a Joint Venture (JV) agreement between Hamilton Stores and Xanterra Parks and Resorts and the National Park Service. The JV terminated with the expiration of the Hamilton Stores contract (12/31/02). A one-year temporary contract has been let to Yellowstone Park Service Stations, Inc. (Conoco-Phillips), pending publication of a prospectus for a long-term contract. This prospectus is being developed in conjunction with PricewaterhouseCoopers, and the prospectus should be published sometime next summer or fall. In the meantime, very little change will be made in the operations of YPSS.

- Winter operations - These contracts have been on an extension for the past two years pending completion of the Winter Use Supplemental EIS. With a Record of Decision expected in late March, we intend to publish prospectuses for snowmobile and snowcoach contracts by mid-March. PricewaterhouseCoopers will conduct a financial feasibility analysis, because of the extreme sensitivity of this issue.

- Backcountry Horse and Pack Outfitters - This prospectus was delayed because of a change in the Category III contract language (much simplified). It is expected that this will be published within the next 30 days.

- Incidental Business Permits - There has been a moratorium in place for approximately 8 years, preventing issuance of new or additional IBP's. The moratorium was in place pending completion of the Commercial Services Plan. Since this plan has never been done and is not likely to be done in the near future, GRTE, JODR and Yellowstone plan to lift the moratorium. Public Law 105-391 changed IBP to commercial use authorization. Regulations for CUA's have just been published in draft and are not yet final. We plan to lift the moratorium on certain activities and retain it on those where resource impacts are likely to result from adding more operators (backcountry use; fishing; bicycle tours, etc.). Unfortunately, the new regulations do not allow a realistic way to limit numbers and it appears prospectuses would have to be issued to set limits (as was the case in the past).

INTERPRETATION

Below is a summary of some of the major activities and accomplishments within the Division of Interpretation during the past year. It has been another extremely productive year. Yellowstone National Park received the ***2002 Garrison Gold Award*** for the best overall Interpretive Program of all 84 National Parks in the NPS Intermountain Region. We were recognized for our development of Yellowstone's Long Range Interpretive Plan (LRIP) and the subsequent accomplishments in the areas of community outreach, constituency-building, resource-based interpretive programs and projects, and our curriculum-based education programs.

Programs

- Interpretive Division staff presented 4,169 individual interpretive programs to 518,544 visitors in 2002. Total visitor center visitation was 2,123,083. We received 49 letters and written comments complimenting our ranger staff.

- We also received 744 verbal complaints from visitors about the lack of ranger-led programs in September. We cut interpretive programs in September to try to make up our budget shortfall.

- Curriculum-based programs reached new and global audiences in 2002 with the expansion of Yellowstone's ***Electronic Field Trip (EFT)*** program series. Online programs were presented in May (Influence of Art in Yellowstone) and September (The Fires of Yellowstone). In 2002 there were approximately 61,000 registered users in all 50 states and nineteen countries. Students who registered received lesson plans and other materials in advance. Countless others participate without advanced registration. This program series won the **"Best New Audio/Visual Award"** from the **Wyoming Historical Society.**

- The Formal Education branch of Interpretation worked closely with a property owner in the gateway community of Silver Gate to explore the development of a residential High School Field Camp for Yellowstone.

- Yellowstone Park Foundation funded a ***Bear Protection through Education Program*** for a second year in 2002. Four park interpretive rangers roved campgrounds, pullouts and provided evening campfire programs on bears in Yellowstone. They responded to 411 wildlife jams and contacted approximately 80,000 visitors. They distributed "bear etiquette" trading-style cards to give visitors "fast facts" about proper etiquette in bear country and "bear protection" lapel pins.

- The Division of Interpretation continued to develop the YNP Official Website. In 2002 the website received **28,033,650 hits, making it the most visited website in the National Park System**, exceeding the total of the next nine NPS websites combined. (Remarkable, since the website was shut down for almost three months as part of the DOI shutdown in 2002.) In addition, the Old Faithful Webcam averages over 27,000,000 hits a month. We received the ***123 Big Cam Tour Award 2002*** for the best worldwide livecam.

Projects

- The **Old Faithful Visitor Education Center** planning continued to progress well. By the end of 2002, the Yellowstone Park Foundation (YPF) had raised over $9,500,000 of its $15,000,000 goal toward construction of the building and exhibits. The balance of the estimated total project cost of $23,000,000 is expected to be funded through the Line Item Construction Program. CTA Architects of Billings, Montana and YNP staff worked in close collaboration with YPF staff, board members, and representatives from the Wyoming State Historic Preservation Office to develop a new building rendering that responds to the vision for the building: that it be innovative, and clearly contemporary yet compatible with the historic district. We continued development of interpretive themes and intent for the exhibits. We assembled an Educational Advisory Team and a Science Advisory Team composed of non-NPS members to guide the development of the exhibits and programs for the facility.

- We contracted with Selinda Research & Associates for, and completed a ***Front-end Evaluation of Visitors to Old Faithful***. The evaluation will be used to help make the new visitor center educational programs and exhibits appropriate, relevant and meaningful to our audiences. This was the first time a study like this been done for an NPS visitor center project.

- The **Canyon Visitor Education Center** project continued to progress well. This project involves a major rehabilitation and expansion of the visitor center and the development of state-of-the-art exhibits, audio-visuals, and other interactive media on the park's geologic story. The 100 percent Design Development phase of the building was completed, and the development of construction drawings was begun. The final phase of exhibit planning was begun. Yellowstone Association bookstore planning is in the final phase. Construction is expected to begin in spring 2004 and the building should be completed by the end of 2005. The project is a large, multi-year undertaking, done in close collaboration with the U.S. Geological Survey and academic institutions that have been involved with geologic research in the park for many years.

- In May we premiered two versions of a major film on the hydrothermal features of Yellowstone. *Yellowstone–A Symphony of Fire and Water* is a high-definition, wide-screen, surround-sound film that explains the uniqueness and wonder of Yellowstone as the last unimpaired reserve for hydrothermal features on Earth. It was created as the centerpiece film for the new Old Faithful Visitor Center and was funded by the Yellowstone Association. The film won several awards including a **Gold** in the **Questar Festival**; a **Platinum** at the **Worldfest Houston**, a **Gold** at **the Cindy International Festival**—Best Science category, and **second** place in "Interpretive Films/Videos" from the **National Association for Interpretation.**

- ***Discovery Communications, Inc.*** worked with the Division of Interpretation to develop and produce *Yellowstone Today*, a 15-minute orientation film to be shown in all park visitor centers.

- Chief of Interpretation Diane Chalfant once again served as an instructor for the NPS Interpretive Leadership Seminar at Mather Training Center in April.

Cooperating Associations and Partnerships

- Yellowstone Association Institute 2530 students in three major educational programs, this represents 40 percent more students than they were able to serve in 2001.

- We completed a draft fundraising agreement to cover Yellowstone Association's Annual Membership Appeal activities.

- We completed a draft fundraising agreement to cover Yellowstone Association's proposed Capital Campaign fundraising activities.

- We worked closely with and guided Yellowstone National Art Trust through strategic planning, including a two-day workshop in September.

- We guided the completion of a draft fundraising agreement to cover Yellowstone National Art Trust's proposed fundraising activities.

VISITOR PROTECTION

Managing visitors and resources at wildlife jams continues to be a major workload. While mild in appearance, wildlife jams have been known to occasionally result in road rage between visitors, illegal feeding of wildlife or rangers being charged by grizzly bears as they try to manage an enthusiastic public.

We worked at a staffing level that was below our capabilities to operate safely and efficiently in Law Enforcement, EMS, Structural Fire, SAR, and security. We had a number of rescue operations on Yellowstone Lake including swamped Boy Scout canoes, a beached motorboat, evacuation from a campsite, and a swamped motorboat. This summer again showed that we are severely lacking in staffing for boat patrol.

As usual the park experienced a number of significant level law enforcement activity. Yellowstone was able to increase cultural protection efforts, prosecuting several ARPA cases. Major felony investigations included attempted murder, sexual assaults, and several internal investigations for theft of government property, poaching cases and auto burglary. A record number of cases appeared before the local US Magistrate's court. Arrests were up 200 percent in 2002, for a total of 150.

Yellowstone contributed to homeland security efforts across the country as rangers were deployed as part of Incident Management Teams and Special Event Members to the Olympics, Rushmore, borders, dams, icons, and Washington D.C.

Wildland Fire

The Broad Fire was started by lightning June 27 on the East Side of Mount Washburn south of Broad Creek; it disappeared until July 5, when it went to 160 acres and put up an impressive column. The fire was very visible from around the park and nearby areas. The fire eventually reached over 9000 acres, and atypical winds from the north pushed the fire to within 4 miles of Canyon Village (although the fire remained on the East Side of the canyon).

Youth Conservation Programs

Yellowstone's 2002 YCC Program included 31 students from across the country. Four students were from Mooseheart, IL and three from families of Moose Members. Twenty-nine different work projects provided a variety of work experiences for students and staff.

Environmental education was incorporated into all aspects of the YCC program. This is a major focus of the program and one in which staff provides the students with opportunities to develop a better understanding, awareness and appreciation for not only Yellowstone's resources but of regional and global issues affecting them.

National cuts in the Public Lands Corp program had a significant effect on Yellowstone. Fortunately supplemental YCC funding helped reduce the impacts of this reduction. Yellowstone received five grants totaling $82,120 that supported our partnerships with the Student Conservation Association and Montana Conservation Corps.

Publications and visitor information

How we respond to questions from potential visitors has shifted dramatically in the last two years. We are now answering over 20,000 Internet inquiries. Staff ordered, inventoried and distributed 35 different park publications (30 tons worth) such as maps, newspapers, bison and bear warnings, backcountry brochures and boating permits. RMVP staff also coordinated the sale of over 60,000 fishing permits at 83 sites in and around Yellowstone National Park.

Planning Projects

Canyon Ranger Station Planning Process:

The planning process for the redesign of the Canyon Visitor Center and the consequent loss of the RMVP space in that building triggered the formation of an interdisciplinary planning team to facilitate the construction of a new Canyon Ranger Station.

Courthouse

The National Park Service at Yellowstone National Park is supporting the planning, design and construction of a new courthouse facility that safely meets the growing needs of the Magistrate and the park. The needs of other regional and federal law enforcement agencies will also be met more effectively as the U.S. Magistrate occasionally hears cases for the Department of Agriculture and U.S. Forest Service. Cost sharing with the U.S. Courts and the U.S. Marshall Service provides an excellent opportunity for the National Park Service; the U.S. Attorney's Office, defendants, counsel, and the public to realize an important improvement to park enforcement operations.

Winter Use Issues

A significant effort was put into patrolling the west boundary for snowmobile encroachment. This area is located south of West Yellowstone mainly in the area of South Riverside Cabin. Thousands of snowmobile tracks were observed inside the park, some as far as 10 miles inside the boundary. In addition to the winter patrols, a significant amount of time was spent on marking the boundary along the West Side where the majority of snowmobile encroachment occurred.

Resource Operations

Resource operations staff is responsible for preventing, monitoring, and controlling non-native plants within approximately 6,500 acres surveyed with 90 percent of control efforts occurring along roadways and in developed areas and 10 percent in the park's backcountry. Thirty-three species were treated on approximately 1,400 acres. An integrated weed management approach was used including mechanical and chemical control. Resource operations staff and volunteers cleaned over 80 thermal pools and geysers and monitored weekly for vandalism.

MAINTENANCE

The Maintenance Division's workload in 2002 continued to focus on the park's major infrastructure problems - roads, utility systems, buildings, and housing. Much of the work, outside of the barest of operations, was accomplished with "soft money" funds that could only be used for specific projects. These projects were much needed, but did not, in most cases, help the general day-to-day operations. The lack of a viable operational base and cyclic and preventive maintenance program is still increasingly evident, especially in roads. If funding does not increase the new roads that we are constructing with Federal Lands Highway Program (FLHP) funds cannot be properly maintained.

Much of what was accomplished, or in many cases deferred, was driven by budget concerns, which resulted in several status positions remaining unfilled. The lack of staff has put increasingly stressful burdens on the existing staff and some things that are done are not receiving correct oversight, follow-up, or documentation. There is a tendency to take care of the short-term problems while the long-term problems get worse.

Environmental Issues:

Yellowstone's Maintenance Division continued work with the surrounding states and counties to address environmental issues. This included the air pollution work done with bio-synthetic oils, lubricants, and alternative fuels in conjunction with the State of Montana, the Department of Energy, and others, as well as with recycling and composting projects in southwest Montana. After two years of operating prototypes, the park replaced 50 two-stroke snowmobiles with cleaner burning 4-stroke snowmobiles. The park continued removing virtually all hazardous cleaning supplies and replacing them with non-polluting substances.

The solid waste program continues to make strides with ongoing partnerships with the cities and counties in Southwest Montana. The park is actively participating in the Headwaters Cooperative Recycling Project and is leading the way in the construction of a regional composting facility, which is scheduled to be operating by the spring of 2003. Recycling within the park has expanded dramatically during the past year. The park now provides recycling opportunities at all major developed areas and campgrounds.

After four years of work and dedication, the park and surrounding region officially became designated as a "Clean Cities" area. This Department of Energy program promotes the use and expansion of alternative fuels. As a result of the designation, funding opportunities for alternative fueled vehicles will come to fruition. In July of 2002, the park installed a 15,000-gallon storage tank to store bio-diesel. In September, the park's entire diesel fleet converted to bio-diesel blend.

The park became the first in the country to install and demonstrate a fuel cell. The cell was located at the West Entrance and co-generated heat for the office building. The park is recognized as a leader in pollution prevention and reuse of resources in the National Park Service. These types of projects have brought the area and the park together and have resulted in benefits for all involved.

Federal Management Software System:

Yellowstone has implemented the Facility Management Software System (FMSS) in the Maintenance Division. A total of 60 employees have usernames/passwords to the production database. The park generated 6,087 work orders for FY 2002, of which 1,713 were associated with the Annual Condition Assessment. The park began the Facility Condition Assessment Survey in 2002 with the training of 35 employees on the FCAS program. An Asset Priority Index (API) and Current Replacement Value (CRV) were calculated for each of the park's assets. The park had five staff members working full-time on the annual condition assessments, with a total of 2,597 person hours devoted to this project. Maintenance foremen, supervisors and subject matter experts also contributed to the inspection/estimating process. The park was required to perform an annual condition assessment on 20 percent of its inventory. The following annual condition assessments were achieved: Paved Roads-38 percent, Unpaved Trails-20 percent, Boardwalks-10 percent and Buildings-15 percent.

The following deferred maintenance costs were estimated in the Cost Estimating System Software (CESS):
Paved Roads-$10,763,959, Paved Parking Areas-$1,884,652, Unpaved Trails-$1,669,194, Paved Trails/Boardwalks-$232,585, Buildings (Public)-$2,555,206, and Quarters-$2,054,336. The total deferred maintenance costs for 166 assets are $19,159,935.

Housing:

Minor rehabilitation, painting, foundation repairs and heating work was accomplished on the following buildings: #2, 3, 4, 5, 7, 9, 10A, 12B, 376, 381, 501B, 562, 565, 567, and on the following trailers: # 61, 62, 75,102, 103, 147 and 153. Quarters #108, one of the log cabins located at the Lamar Buffalo Ranch, was completely renovated.

Construction of a four-plex unit and a duplex unit at Old Faithful was completed in November 2002. Underground utilities consisting of new water lines, sewer lines and manholes were installed by park staff and tied into these buildings and other nearby quarters. Occupancy is expected during the winter of 2002/2003. Construction of a four-plex unit at Lake was begun. A portion of the foundation was placed prior to winter shutdown. A four-plex at Madison was designed this year. The contract will be awarded next year. Design work began on an eight-plex for Old Faithful. The units were funded out of the trailer replacement program and replaced substandard temporary housing units.

Work continued on the Mission 66 units in Lower Mammoth. All the heating systems and fuel tanks have been converted to propane systems. Some old fuel oil storage tanks remain in the ground and must be removed. A few units are being done each year.

Buildings:

A new solar-powered contact station at Lewis Lake was completed while the foundation for the new contact station at Indian Creek campground was poured. A new restroom was completed in the back loop of the Mammoth Campground.

Construction of an accessible public restroom facility, Building #509, at Mammoth Hot Springs continued, with completion expected by 2003.

Renovations of the Yellowstone Chapel were completed which included: repairs on the slate roof, interior plaster walls and ceilings repaired and painted, and wood floors refinished. Other major renovations included: a new tile roof installed on Building #13 (Jail), interior renovation of the observation area on top of Mount Washburn, painting the windows and trim on three sides of the exterior of the Administration Building,

Stabilization and seismic retrofitting of Building #38 continued. Clean up and abatement of asbestos and hazardous lead in this building is in progress. The gutting and total interior renovation work continues as well.

A pump building and an underground storage tank for canola oil was installed in Gardiner to blend fuel for park and concession vehicles. A new exhaust fan was installed in MA#508 (Garage) to remove diesel and gasoline exhaust fumes in order to improve the health of shop employees.

The line item construction contract for the new Heritage and Research Center was awarded in September 2002 to Dick Anderson Construction, Helena, Montana.

Design work in various stages continued on projects to renovate the Old House of the Old Faithful Inn, the Administration Building (Building 36), the Canyon Visitor Center, the new Old Faithful Visitor Education Center, a new West Entrance Station and a new Canyon Ranger Station.

Utilities:

The new Old Faithful wastewater plant construction was completed. Minor items still remain. The new Norris water and wastewater project is in the final stages of design and will be bid in 2003. A new fire line from the Old Faithful water tank to the area is being designed for bid in 2003. A new Madison wastewater plant is in the very early stages of design.

Grounds:

A new concrete sidewalk was installed from the front row houses to the chapel.

Irrigation lines were set in the Gardiner Triangle and seeded with native indigenous seed. Volunteer crews from MCC, MOSS, YCC and YMCA pulled weeds.

Ice Box Canyon picnic area was constructed and a boardwalk was built. The Boardwalk Crew also installed an accessible ramp at the Mammoth Campground amphitheater, completed the Grant Marina boat launch and accessible boardwalk, (funded by Yellowstone Park Foundation), and completed the recycled plastic boardwalk project at Midway Geyser Basin. (Unilever donated recycled plastic decking.)

Sign Program:

To fulfill sign requests, 1,005 signs were made from wood, metal, foam or anodized aluminum.

Roads:

The park road crew overlaid the last four-mile segment of the Mammoth to Norris road, 2-½ miles from Lava Creek to Blacktail, the Lewis Lake Campground roads, and the Lake Hotel Cabin area road and parking area. Various crews also chipsealed a five mile section of road between Cub Creek and Sylvan Pass, paved Canyon Quad parking area, performed grader patching between Tower Junction and Tower Falls, crack-sealed roads between West and Old Faithful, and completed the first phase of the Turbid Lake road obliteration.

The Automated Vehicle Identification system was installed at the North and Northeast Entrances with the Western Transportation Institute (WTI). Design and installation of the Animal Detection System on Highway 191 was another WTI-sponsored project.

Federal Highways Administration Projects (FHWA):

The following work was accomplished by FHWA personnel, the park road team and support staff from the park's landscape architects group:
Beartooth Highway - Consulted with all involved parties regarding road design issues.
Canyon Contractor Camp - Prepared site layout, utility and grading plans. Assisted park crews with tree removal and other resource concerns. Park crews installed utilities and FHWA contractor graded the sites.
Canyon to Tower, and Canyon to Fishing Bridge Roads - Designed pullouts, parking areas, revegetation and sign plans. Worked with FHWA to mitigate concerns from the Fish and Wildlife Service on grizzly bear and white bark pine issues.
East Entrance Road - Oversaw rock haul and pit-shaping contract on Sylvan Pass. Prepared parking area plans and revegetation, wildlife mitigation plans for the next phase from Sylvan Pass to the East Entrance. Reviewed designs.
Madison to Norris Road, segments A & C - Bridge abutment work was finished, native plants and seed went in the ground, and new vegetated coir logs and mats were installed. The Gibbon River Canyon bypass was established and the new parking areas for Artist Paintpots, Terrace Springs, Beryl Springs and Tuff Cliffs were constructed.
Madison to Norris Road, segment B - Design on the new bridge, Gibbon Falls overlook and Gibbon River canyon obliteration and restoration continued.

Trails:

In partnership with the Continental Divide Trail Alliance, 175 yards of abandoned trail were rehabilitated and revegetated on the Heart Lake Trail. Working with the Student Conservation Association, 16 feet of stock bridging, 85 yards of turnpike, and 110 drainage and erosion control structures were constructed on the Thorofare Trail.

With grant-funding assistance from the Yellowstone Park Foundation, the Fan Creek Trail Restoration Project was completed. In partnership with the YCC, work completed during the 2002 phase included: one-half mile of alignment relocation, rehabilitation, and revegetation; five miles of trail maintenance; and 50 feet of stock bridging and causeway construction. The Yellowstone Park Foundation also provided grant-funding assistance secured by Landscape Architect staff for trail work on the Boiling River Restoration Project. In the 2002 phase, Trails staff constructed 150 feet of log post-and-rail fencing with incorporated log bench, and 14 feet of bridging in partnership with the Montana Conservation Corps and North District Resource Management. In addition, 50 feet of hazardous trail was rerouted and the old route rehabilitated.

In partnership with Yellowstone Center for Resources, Landscape Architect, Roads, and Montana Conservation Corps staff, the first phase of the 2002 Turbid Lake Road Restoration Project was begun with NRPP grant funding.

In celebration of National Trails Day, two miles of tread and drainage reconstruction and maintenance, and 90 square feet of rock retaining wall reconstruction were undertaken on the Howard Eaton and Yellowstone River Trails with volunteer participants.

Administrative:

Tim Hudson left the Chief of Maintenance position in June after 20 years.

The Grant Village Maintenance Supervisor position was filled by Bonnie Hawn.

Charlie Fleming filled the Madison/West Maintenance Supervisor position after Woody Wimberley left to take the position of Chief of Maintenance at Saint Croix.

The Fleet Maintenance Supervisor position was filled by Andy Nickerson.

The new subordinate supervisor, John Fors, was hired at Grant Village.

The Engineering Equipment Operator, Fred Dugan, retired at Grant Village.

The new subordinate supervisor, Kirby Barford, was hired at North District Maintenance to replace the Grounds Supervisor, John Cates, who retired.

A new Utility System Operator, Sven Larson, was hired at Old Faithful.

A new Motor Vehicle Operator, Scott Timberlake, was hired at Grant Village.

A new Maintenance Mechanic, Larry Bell, was hired at Old Faithful.

A new Engineering Equipment Operator, Dave Donkersgoed, was hired at Madison/West.

PLANNING

The winter use issue remained the office's highest priority for the year, with growing responsibility for more and more components of the project as the year progressed. The winter issue comprised six areas: preparation of the SEIS, the winter pilot program, the new snowcoach (new red bus), rule making, the administrative record, and monitoring. Overlaying these were a steady stream of press contacts and management briefings on all aspects of the issue. John Sacklin, Jennifer Conrad, Linda Miller, Virginia Warner, and Kevin Schneider all worked on the project. Our goal was to be responsive and supportive to the project leader in Grand Teton and to managers in Yellowstone, Grand Teton, the Region, the Washington Office, and the Department who were involved with the issue.

Next in priority were line item construction projects and the road improvement program. Although reasonable progress was made on both programs, some individual projects faltered because the press of other projects in previous years, especially the winter issue, had put us significantly behind. Although two of the projects, Dunraven road improvement and Norris Water and Wastewater, were six months behind at year's end, we did complete or were on schedule for the Canyon Contractor Camp, the Heritage Center, Madison Wastewater, West Entrance, Mammoth Housing Plan, Canyon Ranger Station, Mammoth Courthouse, and the Hayden Valley, Canyon Rim Drives, East Entrance, and Norris to Golden Gate road improvements. Our office supported and participated in such efforts as the new Old Faithful Visitor Center, Canyon Visitor Center, and Artist's Point.

Participation and support for park standing committees, such as Resource Council, Research Review, and Safety was the office's third priority. Our office is the "keeper of the records" for the projects brought before Resource Council under the project clearance process, and Leigh Anne Dunworth is the coordinator. Leigh Anne also serves as a team member on the park's fire strategy committee and we worked with the Fire Cache, YCR, the Region, and a contractor on the Wildland-Urban Interface Fuels Management project. Doug Madsen remained on the Mammoth volunteer structural fire brigade in the role of Captain. Doug Madsen also helped organize accessibility training for park staff, as well as responded to access complaints and inquiries.

Fourth were projects related to other fund sources, especially the alternative transportation program. These included the automatic vehicle identification system at the North and Northeast entrances (Mike Angermeier of the Landscape Architect group took charge of overseeing the contractor), purchasing a new snowcoach (with assistance by Mark Foster), and developing the specifications for the Old Faithful circulation study that was awarded at year's end. We also worked with the INEEL on an energy and transportation study of the Canyon area as a pilot for a possible Greater Yellowstone Area effort.

Our office devoted some time to several regional committees, such as the Clean Cities effort, the Western Transportation Institute "Greater Yellowstone Rural Intelligent Transportation System" project, and the Gallatin County MOU meetings. Leigh Anne Dunworth also helped Grand Teton in planning for rehabilitation of the old Flagg Ranch developed area as part of a sharing of expertise between parks. In his third trip to the country, John Sacklin spent three weeks in The People's Republic of China in May and June assisting The Nature Conservancy and local governments in planning for tourism in existing and proposed nature reserves.

Finally we spent time on long-range planning efforts this year that are not necessarily tied to a specific, funded project. These included business planning, planning for the Slough Creek campground rehabilitation, weed management planning, and improving the Fort Yellowstone experience.

Beyond the project workload, safety and employee development received much higher emphasis this year. With the events of September 2001, office security and safety was addressed regularly so that we all were aware of mail handling, building evacuation, office rendezvous, and visitor procedures. In personnel related matters, we provided temporary promotion opportunities to three employees (Jennifer Conrad, Kevin Schneider, and Dennis Young). We hired Mike Yochim as a student career enhancement program employee and provided interpretive-related work assignments for Jennifer Conrad that assisted her in being competitive for jobs in her long-term career field, interpretation.

SAFETY

Significant accomplishments to improve safety in Yellowstone National Park include:

Winter Use Advisory Group

Organized by the assistant superintendent, approximately 50 employees met to work on improving winter safety and health in the park. Some improvements that have been made as a result of the groups efforts include improved ventilation in garages, better hearing protection, new grooming equipment, more frequent snow stakes, a cold weather advisory system, road plowing improvements, and cessation of non-essential duties during severe winter weather policy.

SHARP Program

Yellowstone adopted the Safety Hazard Awareness Reporting Program (SHARP). The SHARP program encourages employees to submit significant hazards that affect them, their fellow employees, and park visitors, possible solutions to their resolution, and encourages employees to work with their supervisor to mitigate the hazard. Employees who submit suggestions may be awarded $25 and entered in a drawing for $1,000 at the end of the year. This year over 40 suggestions were submitted resulting in the identification and mitigation of many safety hazards in Yellowstone.

Safety Advisory Committee

The Safety Advisory Committee continued to meet monthly and work towards improving the safety and health of park employees.

OSHA Partnership

OSHA performed a final review of the partnership noting that good progress has been made. All employees interviewed by OSHA stated that safety and health had improved in the park. OSHA and Yellowstone are working towards a new three-year agreement.

Safety Programs and Training

New safety programs were implemented in the park including respiratory protection and confined space entry. Over 20 park employees received root cause accident investigation training. In-depth training was given to park employees on confined space entry, trenching, and safety programs/Dave Heibert training.

New Safety and Health Manager Hired

A new Safety and Health Manager, Brandon Gauthier was hired in November.

YELLOWSTONE CENTER FOR RESOURCES

The Yellowstone Center for Resources made valuable contributions in protecting and understanding Yellowstone National Park's natural and cultural treasures with a FY2002 budget of $4,625,700 and 68.45 full-time-equivalent employees. In FY02, the YCR received a base increase that fully funds the bison program for the first time.

Natural Resources

In FY02, the Bison Ecology and Management Office (BEMO) collaborated with partner agencies to implement the Interagency Bison Management Plan. Progress was made on developing a remote delivery vaccination program, investigating the capabilities of current vaccine delivery equipment, and studying bison movement patterns to learn where it would be feasible to safely conduct remote vaccination work. The bison population produced about 680 new calves, bringing the total to approximately 4,000 animals.

An earthquake swarm occurred in January in Yellowstone's central plateau, an area of known seismic activity that had not been active for some time. Steamboat Geyser, which erupts only sporadically but last, erupted just two years ago, erupted again on April 26, the same day that several small earthquake swarms occurred in the area. Researchers completed an unprecedented inventory of the geothermal features of Yellowstone during 2002 using advanced remote sensing technology and classification techniques.

At least 20 female grizzly bears with home ranges either wholly or partially within the park produced at least 40 cubs in 2002. Most bear foods were below average in abundance during all seasons. Studies were initiated to evaluate the effects of fire on vegetative foods used by grizzly bears and to estimate the portion of fish in grizzly diets using estimates of mercury content of bear hair.

The only whooping crane remaining in the Yellowstone area was last seen in Idaho in fall 2001. The bird was not found in winter migration areas, and was declared a mortality in 2002, leaving no cranes in the Rocky Mountains. A total of 24 bald eaglets and 35 peregrine falcons fledged, the highest numbers recorded in the park's history. Osprey experienced the worst production in 16 years, likely due to strong summer winds that blew down nests and trees. The park's resident trumpeter swan population continues to decline. A comprehensive analysis of trumpeter swan population dynamics was initiated for an upcoming scientific monograph that will define a new course of action for trumpeter swan management.

In January, Yellowstone convened an expert panel on pronghorn which concluded that there was an appreciable risk of a catastrophic event (e.g., severe winter) reducing the population to extinction. In response, the YCR drafted a long-term pronghorn-monitoring program. While bighorn sheep numbers within and outside the park appear to have declined since the mid-1990s, recruitment was relatively high during 2002 for the portion of the population within the park. Survey results suggest that mountain goat abundance is increasing within the park, and that they have clearly established a breeding population in the park.

During 2000, the U.S. Fish and Wildlife Service listed the Canada lynx *(Lynx canadensis*) as a threatened species. Between 2001 to 2004, the park implemented a survey to document lynx in the park using snowtracking during the winter and hair-snares during summer. One possible and one probable lynx track were detected in the interior of the park during winter 2001. During summer 2001, a hair-snare detected one female lynx. During FY2002, snow tracking and snowmobile-based surveys were completed, and camera stations were deployed. The snowtracking survey detected one probable lynx track. Results of laboratory analysis of hair samples collected during summer 2002 will be reported in the FY2003 report.

The wolf population increased by 11 percent in 2002, and at least 148 wolves in 14 packs were present in the park. Of these 14 packs, 12 were considered breeding pairs according to the U.S. Fish and Wildlife Service's definition. Combined with breeding pairs in Idaho and northwest Montana, 2002 will be the third successive year that the minimum population size for wolves in the northern Rockies, according to the recovery plan, will have been achieved. In addition to meeting biological criteria for wolf delisting, approved state management plans are required and currently not all of the states have completed approved plans. Until then, delisting cannot proceed and federal management will continue.

Yellowstone cutthroat trout populations in the Yellowstone Lake basin declined for yet another year. The illegal introduction of nonnative lake trout, discovered in 1994, and the presence of whirling disease, discovered in 1998, appears to be causing severe declines. The effort to remove as many lake trout as possible and control the expansion of this population by gillnetting has, since 1994, removed more than 56,200 lake trout, with 12,549 fish removed in 2002 alone. Research on whirling disease continues to indicate a concentration of the disease near Fishing Bridge and in lower Pelican Creek. The status of westslope cutthroat trout has also been a serious concern for several years, and research indicates that the only remaining genetically pure population exists in the remote North Fork of Fan Creek.

New collections and clarifications resulted in six new native vascular plant species being confirmed to occur within the park, but additional exotic vascular plant species were discovered as well. The summer field season resulted in documenting 136 additional sites for "species of special concern" or rare plants.

Cultural Resources

The archeological program conducted a salvage excavation of sites in the Black Canyon of the Yellowstone River and at the 9,300-year-old Osprey Beach site on Yellowstone Lake in August 2002.

The second year of a paleontological resources investigation resulted in successful surveys of Mt. Everts and Trilobite Point, documenting and collecting museum specimens of Yellowstone fossils.

The Branch of Cultural Resources facilitated new listings of the Mammoth Hot Springs and North Entrance Road Historic Districts (including the Roosevelt Arch) on the National Register of Historic Places. The Mammoth Hot Springs District is significant for its historical association with the development of the park; it is the site of the first administrative headquarters and first concessions.

In 2002, the park hired a cultural anthropologist who conducted oral history interviews with Kiowa, Crow, and Nez Perce elders about traditional associations with what is now Yellowstone National Park. The park also published *Restoring a Presence: Native Americans and Yellowstone National Park* by Larry Loendorf and Peter Nabokov, based on an ethnographic overview and assessment of 10 affiliated tribes. The report was distributed to park staff, affiliated tribes, other constituents, and interested public.

In September, the branch chief, cultural anthropologist, and the bison biologist joined the YCR director and the Assistant Superintendent in a five-day traveling consultation trip and visit to South Dakota tribes. Six affiliated Sioux tribes attended a formal consultation meeting in Pierre, and the park visited the Lower Brule Sioux Tribe as well as two additional tribes, the Oglala and the Cheyenne River, on their reservations. The trip was an effort to build improved relationships with these affiliated cultural groups who must travel long distances to attend consultation meetings held at the park; it was also an effort to exchange information with Indians about bison management and other items of mutual interest.

The cultural resources branch assisted in completing planning for a Yellowstone Heritage and Research Center, which resulted in issuing a $6.1 million-dollar contract to construct the building beginning in FY03. The new facility will meet NPS and NARA standards and other health and safety codes, and will house all but the largest museum objects (most notably, the historic vehicle collection) as well as the entire park library and archive collections.

New items for the park's museum, library, and archival collection, were acquired, most notably James Everett Stuart's 1885 painting, *Old Faithful*; the only known scrapbook from any of Howard Eaton's 1912–1914 trips, including 180 photographs; a 1940s-era park bus driver's uniform; and nearly 100 new books relating to history and science in Yellowstone.

The cultural resources branch entered into a cooperative agreement, facilitated by the Rocky Mountain Cooperative Ecosystem Studies Unit, with the Wyoming State Historic Preservation Office and the University of Wyoming Anthropology Department to retrieve, organize, and digitize cultural records related to historic and prehistoric sites in Yellowstone.

The archivist/historian developed a general agreement between the Buffalo Bill Historical Center's McCracken Research Library and the park's library and archives that would, among other things, promote Yellowstone area scholarship in particular and education generally.

Resource Support

The Spatial Analysis Center completed databases relating to fire history; mining claim and oil and gas leases; historic rare plants and wetlands; historic landscape alterations; breeding bird surveys; fisheries research; and the thermal area and thermophile inventories. The center is working with the fire cache to create accurate fire perimeters and burn severity maps, and has started a pilot project to determine what resources would be needed to create accurate, digital maps of the utilities at the major developed areas.

In 2002, the quarterly journal *Yellowstone Science* celebrated its tenth year highlighting many aspects of the park's natural and cultural resources. Issues this year featured interviews with Jack and Susan Davis (including color photographs of their newly acquired Yellowstone memorabilia collection), and Kenyan conservationist Richard Leakey. Among the feature articles were stories on Native Americans and geysers, a reprint of the National Research Council's northern range report conclusion and recommendations, and a history of Theodore Roosevelt's views on predator control in Yellowstone. Five issues of *The Buffalo Chip* were produced including a summer issue on bison research and management.

Resource information staff planned, organized, and coordinated the Sixth Biennial Scientific Conference on the Greater Yellowstone Ecosystem, held Oct. 8–10, 2001. The conference theme was *Yellowstone Lake: Hotbed of Chaos or Reservoir of Resilience?* The conference was noteworthy for its interdisciplinary nature, addressing management issues, natural features, and human history. Session topics included archeology, human history, climate and environmental change, species distributions and trends, fisheries and ecosystem-level functions, and hydrothermal and geologic processes. The proceedings will be available from the YCR in early 2003.

In FY02, Yellowstone's Research Permit Office authorized 278 research permits to 245 different principal investigators from almost every state in the union as well as six foreign countries, supported by over 450 field technicians. Although Yellowstone is well known for its wildlife and geothermal systems, a wealth of research related to other topics occurs here. Research topics include: Air, Soil, and Geology-39; Microbiology-51; Lakes, Stream, and Groundwater-12;

Vegetation-32; Wildland Fire-6; Bears-8; Birds-2; Bison-7; Elk and Other Ungulates-9; Fish and Aquatic Life-23; Wolves-5; Other Wildlife Species-21; Archeology-6; Paleontology-9; Ethnographic Resources-1; Geographic Information Systems-9; Education and Interpretation-32; and Resource Management Planning-6.

At the end of 2002, the Benefits-Sharing NEPA Team anticipated the release of the draft EIS for Servicewide review, scheduled for spring 2003. This first-ever Servicewide EIS will evaluate how best to manage benefits-sharing arrangements with the small number of park-permitted researchers who are commonly characterized as bioprospectors. The EIS applies to all units of the National Park System and evaluates and compares potential means to implement benefits-sharing within the NPS and the resultant effects, including a “no action” alternative that would preclude parks from engaging in benefits-sharing.

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